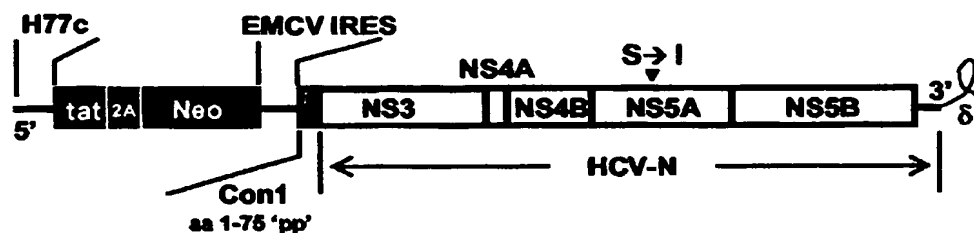
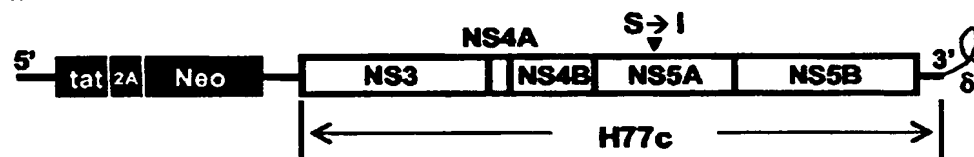
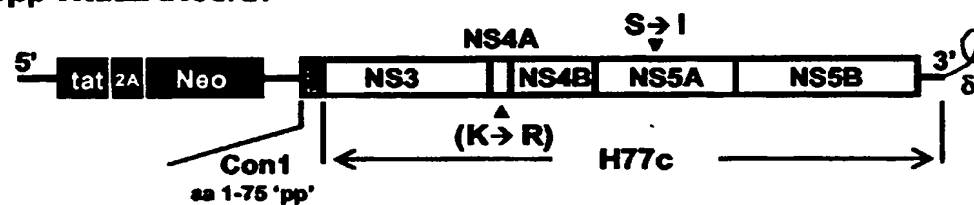
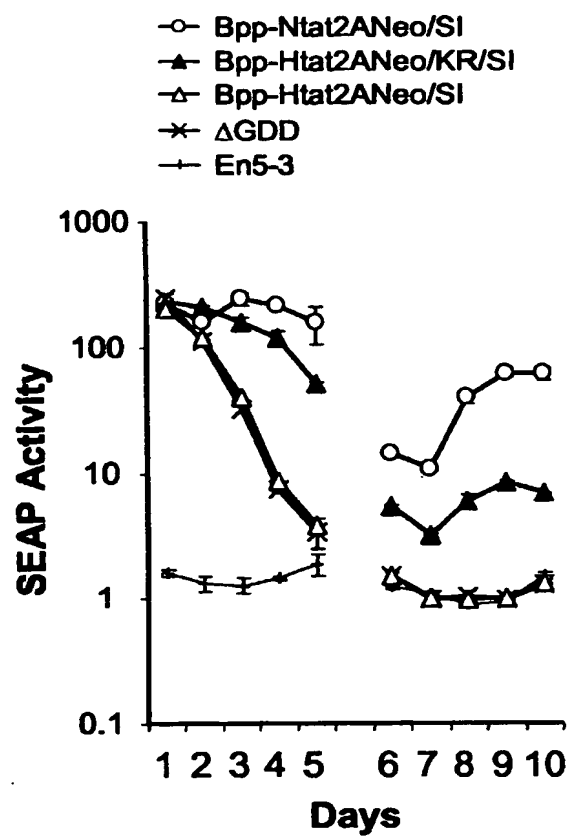


1/38

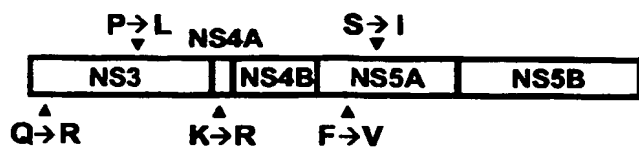
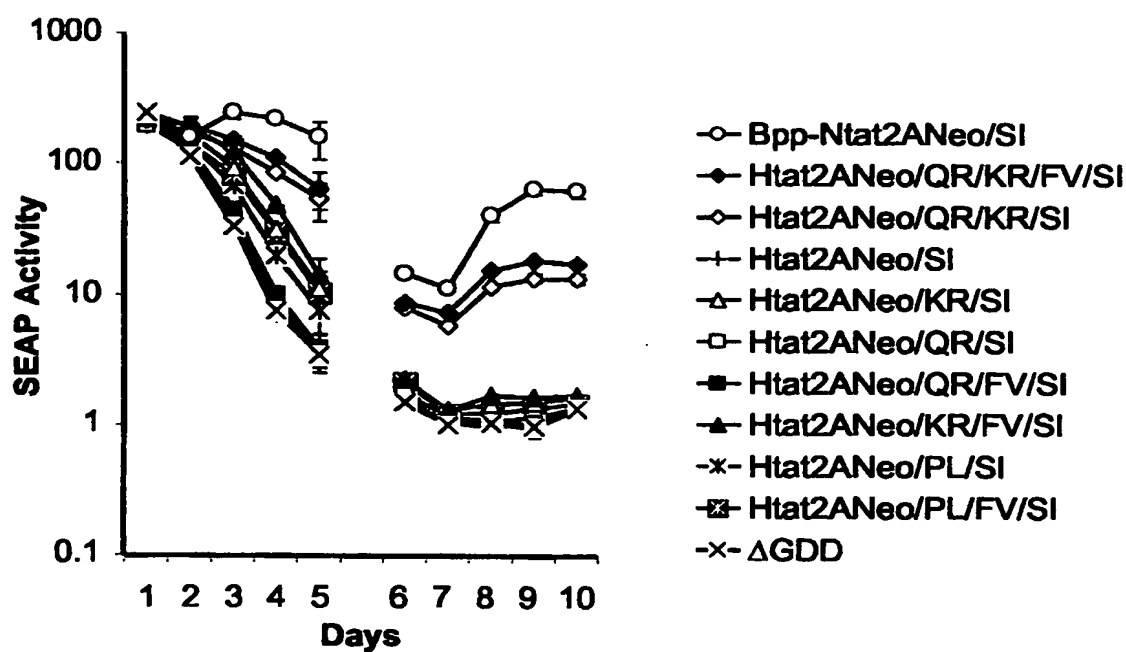
*Fig. 1***Bpp-Ntat2ANeo/SI****Htat2ANeo/SI****Bpp-Htat2ANeo/SI**

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2/38

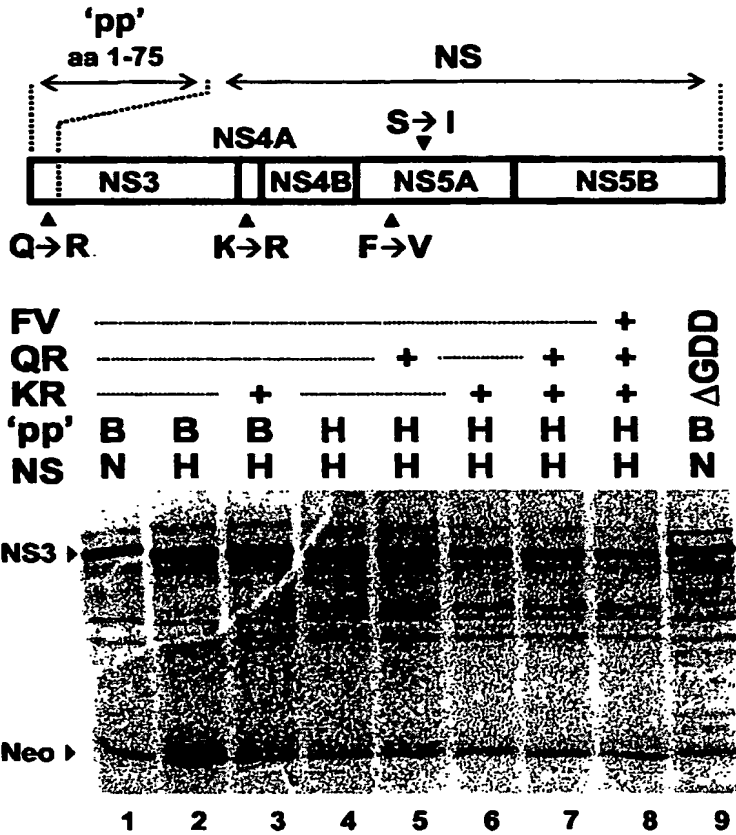
Fig. 2

4/38

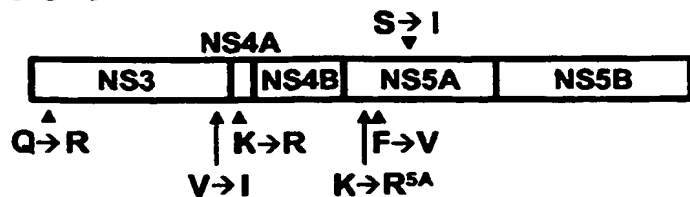
Fig. 4A*Fig. 4B**Fig. 4C*

SEAP	NS Substitutions				
	3p	3h	4A	5A	5A
-					SI
-			KR		SI
-	QR				SI
+++	QR		KR		SI
-	QR			FV	SI
+			KR	FV	SI
+++	QR		KR	FV	SI
+		PL			SI
+		PL		FV	SI

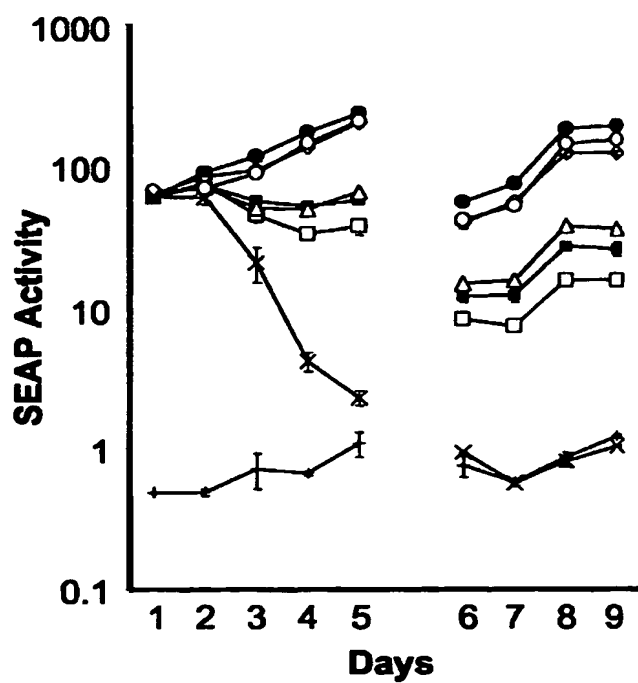
Fig. 5



6/38

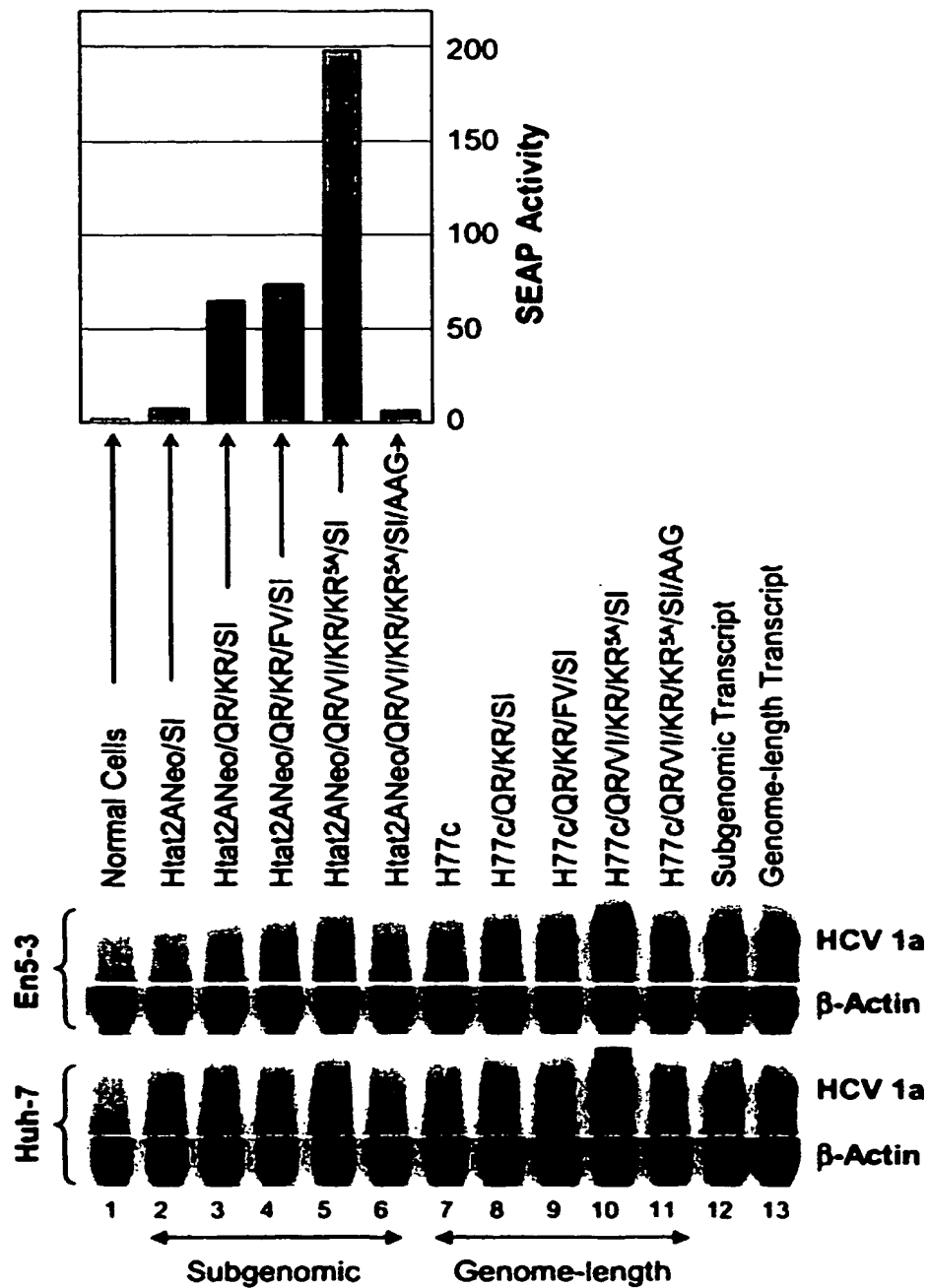
Fig. 6A*Fig. 6B*

- Htat2ANeo/QR/VI/KR/KR^{5A}/SI
- Bpp-Ntat2ANeo/SI
- ◇ Htat2ANeo/QR/KR/KR^{5A}/SI
- △ Htat2ANeo/QR/VI/KR/SI
- Htat2ANeo/QR/KR/FV/SI
- Htat2ANeo/QR/KR/SI
- × ΔGDD
- + En5-3 Cells



7/38

Fig. 7



8/38

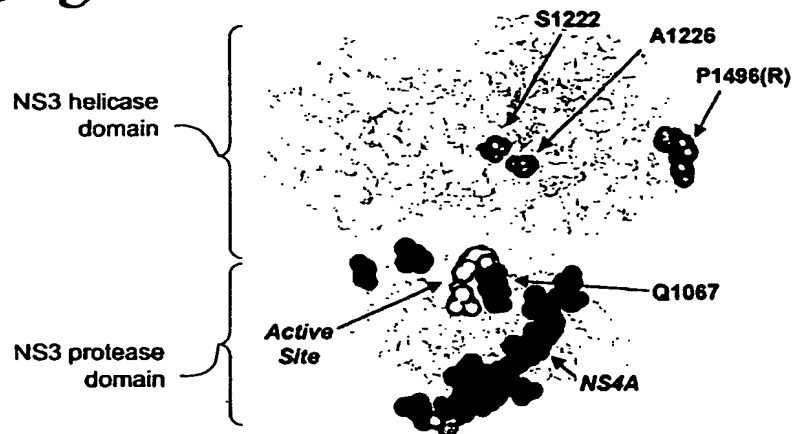
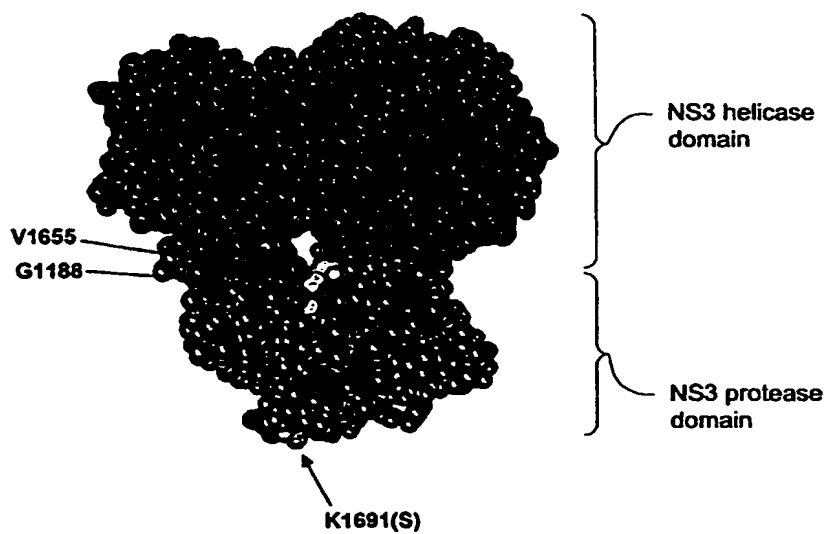
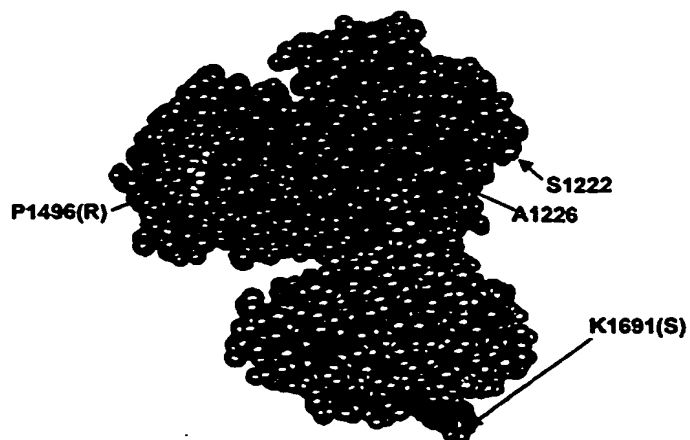
Fig. 8A*Fig. 8B**Fig. 8C*

Fig. 9

1	ACCTGGA	AA	ACATGG	ACCA	ATCA	CAAGTA	GC	AA	TACAGC	AGCT	TACCAAT	GCCT	GTCTGTG	CC	TTGGCT	AGA	AGCACA	AGAG	80
81	GAGGAGG	AG	TGGGTTT	TCC	AGTC	ACACCT	CAGG	TACCTT	TAAG	ACCAAT	GACTT	TACAAG	GCAGCT	GTAG	ATCTT	AGCCA	160		
161	CTTTT	TAAAA	GAAAA	GGGG	GACT	TGGAAG	GCT	AAATTCAC	TCCC	AAAGAA	GACA	AGATAT	CCTT	GATCTG	TGGAT	CTACC	240		
241	ACACACA	AGG	CTACTT	CCCT	GATT	AGCAGA	ACT	TACACACC	AGGCC	CAGG	GTCAGATATC	CAC	TGACCTT	TGGAT	TGGTGC	320			
321	TACAAGC	TAG	TACCAG	TGA	GCC	AGATAAG	ATAG	AAAGG	CCA	ATAAAG	AGAGA	ACACC	AGCTT	GTTAC	ACCT	TGTAG	400		
401	CCTGAT	GGG	ATGGAT	GACC	CGG	AGAGAGA	AGTG	TTAGAG	TGG	AGTTTG	ACAGCG	CCCT	AGCAT	TTTCAT	CACGT	TGGCCC	480		
481	GAGAGC	TGCA	TCCGG	AGTAC	TTCA	AGAACT	GCTG	ACATCG	AGCT	TGCTAC	AAGG	ACTTT	CCGT	TGGGA	CTTT	CCAGG	560		
561	AGGCGT	GGCC	TGGCGG	GGAC	TGGG	GAGTGG	CGAG	CCCCA	GAT	CTTCAT	ATAAG	CAGCT	GC	TTTTTGCC	TGTACT	TGGGT	640		
641	CTCTCT	TGTT	AGACCA	GATC	TGAG	CCCTGG	AGCT	CTCTGG	CTAA	ACTAGG	AACCC	ACTGC	T	TAAAG	CCCTCA	ATAaagcttc	720		
721	TGCATG	CTC	TGCTG	TGCT	GCTG	CTGGC	CTAG	GGCTAC	AGCT	CTCCCT	GGGC	ATCATC	CCAG	TTGAGG	AGGAGA	ACCC	800		
801	GGACTT	CTTG	AACCG	CGAGG	CAGC	CGAGGC	CCTG	GGTGCC	GCCA	AGAAAGC	TGCAG	CCCTGC	ACAG	ACAGCC	GCCA	AGAACC	880		
881	TCATCA	TCTT	CCTGG	GGCAT	GGGA	TGGGG	TGCT	TACGGT	GAC	AGCTGCC	AGGA	TCTTAA	AAGG	GCAGAA	GAAGG	ACAAA	960		
961	CTGGGG	CCCTG	AGATAC	CCCCCT	GGCC	ATGGAC	CGCT	TCCCAT	ATGT	TGGCTCT	GTCCA	AGACA	TACA	ATGTAG	ACAA	ACATGT	1040		
1041	GCCAGAC	AGT	GGAGC	CCAC	CGGCC	CTA	CCTG	TGGGG	GTCA	AGGGCA	ACTT	CCAGAC	CATT	TGGCTTG	AGTGC	AGCCG	1120		
1121	CCCGCT	TATA	CCAGT	GTCAA	ACG	ACACGG	GCA	ACGAGGT	CAT	CTCCGTG	ATGA	ATCGGG	CCA	AGAAAGC	AGGGA	AGTCA	1200		
1201	GTGGG	AGTGG	TAACC	ACCAC	ACG	AGTGCAG	CACG	CCCTGC	CAGC	CGGCAC	CTACG	CCCCAC	ACG	GTGAACC	GCA	ACTGGTA	1280		
1281	CTCGG	ACGCC	GACGT	GCCTG	CCTC	GGCCCCG	CCAGG	AGGGG	TGCC	CAGGACA	TCCG	TACGCA	GC	TCACTCC	AACAT	TGGACA	1360		
1361	TTGACG	TGAT	CCTAG	GTGA	GGCCG	AAAGT	ACAT	GT	TTCC	CATGGG	AAACC	CCAG	ACCCCTG	AGT	ACCCAGA	TGACTACAGC	1440		
1441	CAAGGT	TGGA	CCAGG	CTGGA	CGGG	AAAGAT	CTGG	TGCAGG	AT	TGGCTGGC	GAAG	CGCCAG	GGT	CCCCGGT	ATGT	TGTGGA	1520		
1521	CCGCAC	TGAG	CTCAT	TGCAGG	CTT	CCCCCTGGA	CCCG	TCTG	TG	ACCATCTCA	TGGG	TCTCTT	TEAG	CCCTGGA	GACAT	TGAAT	1600		
1601	ACGAGAT	TCCA	CCGAG	ACTCC	ACAC	TGGACC	CTT	CCCTGAT	GGAG	ATGACA	GAGG	CTGCC	TGCG	CCCTGCT	GAGC	AGGAAC	1680		
1681	CCCCG	CGCT	TCTT	CTCTT	CGT	TGAGGGT	GTCG	GCATCG	ACCAT	TGTCA	TCAT	GAAAGC	AGGG	CTTACC	GGGC	ACTGAC	1760		
1761	TGAGAC	GA	ATGTT	TCGACG	ACGCC	ATTGA	GAGG	CGGGC	CAGC	CTCACC	CGG	AGGAGGA	CACG	CTGAGC	CTCGT	CACTG	1840		
1841	CCGACC	CACTC	CCACG	TCTTTC	TCC	TTCGGAG	GCT	TACCCCCCT	GCAG	AGGAGC	TCCAT	CTTTCG	GGCT	TGGCCCC	TGGCA	AGGCC	1920		
1921	CGGGAC	AGGA	AGGC	CTACAC	GGT	CTCTCTA	TACG	GAAAGC	GTCC	CAGGCTA	TGT	TGCTCAAG	GACG	GGCGCCC	GGCCG	GATGT	2000		
2001	TACCG	AGAGC	GAGAG	CGGGGA	GCCCC	CGAGTA	TCCG	GCAGCAG	TCAG	CACTGC	CCCT	TGGACCA	AGAG	ACCCAC	GCAGG	CGGAGG	2080		
2081	ACGTG	CGGT	GTT	TCGCGC	G	GTTCGCGC	G	GTTCGCGC	G	GTTCGCGC	G	GTTCGCGC	G	GTTCGCGC	G	GTTCGCGC	2160		
2161	GCCTT	CGCGG	CCTG	CCCTGGA	GCCC	CTACACC	GCCT	TGCAGC	TGG	CGCCCCC	CGCC	GGCACC	ACCG						

Fig. 10A

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      | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100
1  TGAAGGTTGG GGTAAACACT CCGGCTCTTT AAGCCATTTC CTGTTTTTTT TTTTTTTTTT TCTTTTTTTT TTTCTTCCCT TTCCCTTCTTT 100
101 TTTTCCCTTC TTTTCCCTT CTTAATGGT GGCTCCATCT TAGCCCTAGT CACGGCTAGC TGTGAAAGGT CCGTGAGCCG CATGACTGCA GAGAGTGCTG 200
201 ATACTGGCCT CTCTGCAGAT CATGT

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10/38

Fig. 10B

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      | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100
1  GCCAGCCCC TGATGGGGC GACACTCCAC CATGAATCAC TCCCCTGTGA GGAAGTCTG TCTTCACGCA GAAAGCGTCT AGCATGGCG TTAGTATGAG 100
101 TGTCGTGCAG CCTCCAGGAC CCCCCTCCC GGGAGAGCCA TAGTGGTCTG CCGAACCCGT GAGTACACCG GAATTGCCAG GACGACCCGG TCCTTCTTG 200
201 GATAAACCCG CTCATATGCT GGAGATTGG GCGTGCCCCC GCAAGACTGC TAGCCGAGTA GTGTTGGGTC GCGAAAGGCC TTGTGGTACT GCCTGATAGG 300
301 GTGCTTGCGA GTGCCCCGGG AGGTCTCGTA GACCGTGCAC C

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11/38

Fig. 11A-1

1	GCCAGCCCC	TGATGGGGC	GACACTCCAC	CATGAATCAC	TCCCTGTGA	GGAACTACTG	TCTTACGCA	GAAAGGTCT	AGCATGGCG	TTAGTATGAG	100
101	TGTCGTGAG	CTCCAGGAC	CCCCCTCCC	GGAGAGGCA	TAGTGGTGTG	CGGAACCGGT	GAGTACACCG	GAATTGCCAG	GAGCACCAGG	TCCTTTCTTG	200
201	GATAAACCC	CTCAATGCT	GGAGATTGG	CGCTGCCCC	GCAAGACTGC	TAGCCGAGTA	GTGTTGGTCT	GCGAAGAGCC	TTCTGGTACT	GCCTGATAGG	300
301	GTGCTTGCG	ATGCCCGGG	AGGTTGCTA	GAGCTGCGA	CATGAGCAG	AATCTTAAC	CTCAAGAAA	AACCAACACC	AACCAACACC	GTCCGCCACA	400
401	GGAGCTCAAG	TCCCGGGTG	CGGTGAGAT	CGTGGTGCA	GTTCATTGT	TGCGCGGCG	AGGACCTGG	CTCAGCCCGG	GACGACCTAG	GACGACCTAG	500
501	GAGCGTGGC	AACCTGGAG	TAGACGTCAG	CTATGCCCA	AGGACCTGG	GCCCGAGGG	AGGACCTGG	CTCAGCCCGG	GACGACCTAG	GACGACCTAG	600
601	GCAATGAGG	TTCGGGGTG	CGGGATGGC	TCTGTCTCC	CCGTGGCTCT	TACCGTCTCT	TTCTCTATCT	TCCTTCTGGC	CTGCTCTCT	TGCTTCTCT	700
701	TAAGTCAAT	GATACCTTA	CGTGGGCTT	CGCGACCTC	ATGGGTACA	TGCTTCTCT	TTCTCTATCT	TCCTTCTGGC	CTGCTCTCT	TGCTTCTCT	800
801	GGCGTCCGG	TCTTGAAGA	CGCGTGAAC	TATGAACAG	GGAACCTTCC	ACCATGATT	GGCCTAATC	GAGTAATGTG	TACGAGGCG	CCGATGCCAT	900
901	TGCGCGCTC	AGCTTACCA	GTGCGCAAT	CTCGGGGCT	TTACCATGTC	GGTGTGGGT	GGCCTAATC	GAGTAATGTG	TACGAGGCG	CCGATGCCAT	1000
1001	CCGACACTC	CGGGGTGTG	TCCCTGGCT	TCGCGAGGT	AACGCCCTGC	GGTGTGGGT	GGCCTAATC	GAGTAATGTG	TACGAGGCG	CCGATGCCAT	1100
1101	CCGACACTC	AGCTTACCA	GTGCGCAAT	CTCGGGGCT	TTACCATGTC	GGTGTGGGT	GGCCTAATC	GAGTAATGTG	TACGAGGCG	CCGATGCCAT	1200
1201	TTGGTCAAT	GTTTACCTT	TCTCCAGGC	GCCACTGGC	GACGCAAGC	TGCTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	1300
1301	GGATATGAT	ATGAATGAT	CCCTACGGC	CCCTACGGC	GTAGCTCAGC	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	1400
1401	GGAGTCTGG	CGGCTATGC	GTATTTCTC	ATGCTGGGA	ACTGGGCGA	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	1500
1501	TCACCGGGG	AAATGCCGC	GCACACAGG	CGGCTGGT	TGCTTCTCT	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	1600
1601	GACATCAAT	AGACGGGCT	TGAATGCAA	TGAAGGCTT	AACACCGCT	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	1700
1701	GAGAGTGG	ACAGCTGGC	ACGCTTACC	GATTTGCC	AGGCTGGGG	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	1800
1801	GGCATTACC	TCCAAGACT	TGTGGATTG	TGCCGCAAA	GAGCGTGTG	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	1900
1901	CAGGTGCGC	GCCTACCT	ACAGTGGG	TGCAATGAT	ACGATGTCT	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	2000
2001	TGATGAACT	CAATGGAT	CACCAAGTG	CGGAGGCG	CCCTTGTGT	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	2100
2101	GCAATCAAT	GGAGCCACA	TACTCTGGT	TGCGTCCGG	TCCCTGGAT	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	2200
2201	TACCATCAAT	TACACCATAT	TCAAGTTCAG	GATGTACGT	GGAGGGTGG	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	2300
2301	CTGGAAGACA	GGACAGGTC	CGAGCTCAG	CCGTGTCTG	TGTCACACAC	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	2400
2401	CCGGCTCAT	CCACTCCAC	CAGACATTT	TGACGTGCA	GTACTTGTAC	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	2500
2501	TCTCTGTT	CTTCTGCTT	CAGACGGCG	GGTCTGCTC	TGCTTGTGA	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	2600
2601	CTCAATGAG	CATCCCTGG	CGGACCGAC	GGTCTGCTC	CTTCTCTGT	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	2700
2701	TCTACGGCT	CTACGGGATG	TGGCTCTCC	TCCTGCTCT	GCTGGCGTGT	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	2800
2801	GGTGTGCTT	GTGGGGTTA	TGGCGCTGAC	TCTGTGCGA	TATTACAGC	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	2900
2901	GAAGCGAAC	TGACAGTGT	GGTCCCGCC	CTCAACGTC	GGGGGGGCG	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	3000
3001	ACATCAACAA	ACTACTCCT	GCCATCTCG	GACCCCTTG	GATTTCTCA	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	3100
3101	GATCTGGCG	CTAGCGCGA	AGATAGCGG	AGTGCATTAC	GTGCAATGG	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	3200
3201	ACCCCTCTT	GAGACTGGC	GCACACGGC	CTCAACGTC	TGGCCGTGG	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	3300
3301	GGGAGATAC	CGCGCGTTC	GGTGACATCA	TCAAGGCTT	GCCCGTCTCT	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	3400
3401	CAAGGGTGG	AGGTGCTGG	CGCCATCAC	GGGTACGCC	CAGCAGACA	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	3500
3501	CAAGTGGAG	GTAGGTGCA	GATCGTGTCA	ACTGCTACC	AAACCTTCT	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	3600
3601	CGAGGACCAT	CGATCAACC	AAGGTCCTG	TATCCAGAT	GTATACCAAT	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	3700
3701	GACACCTGT	ACCTGGGCT	CTCGGACCT	TTACTGGTC	ACGAGGACG	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	3800
3801	TCGCCCCGG	CCATTGCTT	CTTGAAGGC	TCCTCGGGG	GTCCGCTGT	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	3900
3901	GTGGAGTGG	TAAAGCGGT	GACTTTATC	CTGTGGAGA	CCTAGGGACA	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	4000
4001	CCAGAGCTT	CAGGTGGCC	ACCTGCATG	TCCACCCGG	AGCGTAAAGA	GGTCCGGT	CCCAACAGC	ATCATGGACA	TGATCGCTG	TGCTCACTG	4100

12/38

Fig. 11A-2

4101 CTCACCCCT CTGTTGCTGC AACGCTGGGC TTGTTGCTCTT ACATGTCCAA
 4201 CTGGAGCCC CATACAGTAC TCCACCTACG GCAAGTTCCCT TGCCGACGGC
 4301 CACGATGCC ACATCCATCT TGGGCATCGG CACTGTCCCTT GACCAAGCAG
 4401 TCCGTCAGT TGTCCCATCC TAACATCGAG GAGTTGCTC TGTCCACCAC
 4501 TGGGAGACA CTGCTATTC TGCACCTCA AAGAAAGTGC CGACGAGTCC
 4601 GCTTGAAGT TCTGTATCC CGACACGGG CGATGTTGTC CCGTGTGCA
 4701 TGCAACAGT GTGTCACTCA GACAGTCGAT TTACAGCTTG ACCCTACCTT
 4801 GCCGGGCAG GACTGGCAGG GGAAGCCAG GCATCTATAG ATTTGTGGCA
 4901 CTATGACGG GGTGTGCTT GGTATGAGT CAGCCCGCC GAGACTACAG
 5001 CATCTTGAAT TTGAGGAGG CGTCTTTACG GGCTCACTC ATATAGATGC
 5101 TAGCGTACCA AGCCACCGTG TGGCTAGGG CTCAAGCCCC TCCCCATCG
 5201 GCCAACACCC CTGCTATACA GACTGGGCG GGTGCTCGTT TGGTGTCTCT
 5301 GAGGTGCTCA CAGACACCTG GGTGCTCGTT GCGGCGTCC TGGTGTCTCT
 5401 TCTTGTCCGG GAAGCCGGCA ATTATACCTG ACAGGAGGT TCTCTACCAG
 5501 AGGGATGATG CTGCTGAGC AGTTCAAGCA GAAGGCCCTC GGCCTCCTGC
 5601 TGGAGAAAT TCAGGTCTT TTGGCGAAG CACATGTGGA ATTTCACTAG
 5701 TTGCTTCATT TAGGCTTTT ACAGTSCCG TACCAGCCC ACTAACCACT
 5801 CGCCGCCCCC GTGCGGCTA CTGCTTTGT GGTGCTGTC TAGCTGGG
 5901 GGTATGGCG CCGGCGTGGC GGGAGCTCTT GTAGCATTC AATCTATGAG
 6001 TCTGCTGAG AGCCCTTGTG GTCGCTGTTG TCTGCGCAG AATACTGCGC
 6101 AGCCCTGCGC TCCGCGGGA ACCATGTTTC CCGACGCGC TACGTGCGG
 6201 ACCAGTCC TGAGCGACT GGCATGATGG ATAGCTCGG AGTGATCCAG
 6301 TGTGAGGCA CTTTAAGACC TGGCTGAAGC CCAAGCTCAT GCCACAACCTG
 6401 AGGAGAGGC ATTATGCACA CTCGCTGCCA CTGTGGAGCT GAGATCACTG
 6501 AACATGTGA GTGGGACGTT CCCCATTAAC GCCTACACCA CCGGCCCTGT
 6601 CAGAGGAATA CTGGGAGATA AGGCGGTGG GGGACTTCCA CTACGTATCG
 6701 ATTTTTCACA GAATTGGAG GGTGCGCCT ACACAGGTTT GCGCCCTCTT
 6801 TACCCGCTGG GTTCGCAATT ACCTTGGAG CCGCAACCGG ACGTAGCCGT
 6901 GGAGAGGTT GGGAGAGGG TCACCCCTT CTATGGCCAG CTCCTCGGT
 7001 CTCCCTGAC GCGAGCTCA TAGAGGCTAA CTTCTGTGG AGGCAGGAGA
 7101 GACTCTCTCG ATCCGCTTGT GGCAGAGAG AACCCCGCG GAGTCTCCGT
 7201 TGTGGGCGG GCGGACTAC ATCCCGCGC TAGTAGAGAC GTGGAAAGAG
 7301 GTCCCTCTCT GTCCCTCCG CTGCGGAAA CTGCGGAAA GTCCCTACCG
 7401 AGCTCTCAA TTTCCCGCAT TACGGGCGAC AATFAGACAA CATCTCTGA
 7501 CCATGCCCC CTGGAGGGG GAGCTGGGG ATCCGATCT CAGCAGCGGG
 7601 CTCATGTCT TATTCCTGA TATTCCTGA CAGGCGACT CGTACCCCG TCGCTGCGG
 7701 CACAATCTGG TGTATTCAC CACTTCACG AGTGTGTC AAAGCCAGAA
 7801 TGTCAAGGA GTTCAAGCA CCGCGGTCAA AAGTGAAGG TAACCTGTGA
 7901 GTTTCAGGAT GGGCAAGAA ACGTCCCTTG CCATGCCAGA AAGCCCTGAT
 8001 ATAGACACTA CCATCATGGC CAAGAAGAG GTTTCTCGG TTCAGCTTGA
 8101 TGGCGGTGTG CGAGAAGATG GCCCTGTAG ACGTGTGTAG CAAGCTCCCC
 8201 GGTGGAATTC CTGCTGCAAG CGTGGAGTC CAAGAAGACC CCGATGSGGT
 8300 TCTCGTATGA TACCCGCTGT TTTGACTCCA CAGTCACTGA GAGCGACATC

13/38

Fig. 11A-3

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8301 CGTACGGAGG AGGCAATTTA CCAATGTTGT GACCTGGACC CCAAGCCCG      50
8401 CCAATTCAAG GGGGGAAC TGCAGTACC GCAGGTGCCG CCGAGCGGC      50
8501 GCGAGCCTGT CGAGCCGAG GGTCCAGGA CTGCACCATG CTGCTGTGTG      50
8601 GCGAGCCTGA GAGCCTTAC GAGGCTATG ACCAGGTACT CGCCCCCCC      50
8701 CTTCCAACGT GTCAGTCGCC CACGACGGCG CTGGAAAGAG GGTCTACTAC      50
8801 AAGACACACT CCAGTCAAT CCTGGCTAGG CAACATAATC ATGTTTGCCC      50
8901 ATAGCCAGG ATCAGCTTGA ACAGGCTCTT AACTGTGAGA TCTACGGAGC      50
9001 ATGGCCTCAG CGCATTTTCA CTCACAGTT ACTCTCCAGG TGAATCAAT      50
9101 GAGACACCGG GCCCGAGCG CTCCAGCTAG GCTTCTGTCC AAGAGGGCA      50
9201 CTCAAACTCA CTCRAATAGC GGCCTGTGC CCGCTGGACT TGTCCGGTTG      50
9301 CCGGCCCCCG CTGGTTCTGG TTTTGCCTAC TCCTGCTCGC TCGAGGGTA      50
9401 TCTTAAGCCA TTTCTGTGTT TTTTCTTTT TTTTCTTTT TTTTCTTTT      50
9501 TGGTGGCTCC ATCTTAGGCC TAGTCACGGC TAGCTGTGAA AGTCCGTGA      50

      10      20      30      40      50

CGTGGCCATC AAGTCCCTCA CTGAGAGGCT TTATGTTGGG GGCCTCTTTA 8400
GTACTGACAA CTAGCTGTGG TAACACCCCTC ACTTGCTACA TCAGGCCCG 8500
GCGACGACTT AGTCGTATC TGTGAAAGTG CGGGGTCCA GGAGGACCG 8600
CGGGGACCCC CCACAACAG AATACGACTT GGAGCTTATA ACATCATGCT 8700
CTTACCCGTG ACCCTAAC ACCTACAGG ATACTGATGA CCCATTTCTT TAGCGTCTC 8800
CCACACTGTG GCGAGGATG ATACTGATGA CCCATTTCTT TAGCGTCTC 8900
CTGCTACTCC ATAGAACAC TGGATCTACC TCCAATCATT CAAAGACTCC 9000
AGGGTGGCCG CATGCTCAG AAACCTTGGG GTCCCGCCT TGCAGCTTG 9100
GGGCTGCCAT ATGTGGCAG TACCTCTTCA ACTGGGAGT AAGAACAAAG 9200
GTTACGGCTT GGCTACAGCG GGGAGAGCAT TTATCAGAG GTGTCTCATG 9300
GGCATCTACC TCCTCCCCAA CCATGAAGG TTGGGGTAA CACTCCGGCC 9400
TTTTTTTCTT TCCTTTCTCT TCTTTTCTC TTTCTTTTC CACTCTTTAA 9500
GCCGCATGAC TGCAGAGAGT GCTGATACTG GCCTCTCTGC AGATCATGT 9599
      60      70      80      90     100

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SUBSTITUTE SHEET (RULE 26)

16/38

Fig. 11B-3

3042/901 ATT CTT CAA GCC AGT TTG CTT AAA GTC CCC TAC TTC GTG CGC GTT CAA GGC CTT CTC CGG ATC TGC CGG CTA GCG CGG AAG ATA GCC GGA
 I L Q A S L L K V P Y F V R V Q G L L R I C A L A R K I A G
 3132/931 GGT CAT TAC GTG CAA ATG GCC ATC ATC AAG TTA GGG GCG CTT ACT GGC ACC TAT GTG TAT AAC CAT CTC ACC CCT CTT CGA GAC TGG GCG
 G H Y V Q M A I I K L G A L T G T Y V Y N H L T P L R D W A
 3222/961 CAC AAC GGC CTG CGA GAT CTG GCC GTG GCT GTG GAA CCA GTC GTC TTC TCC CGA ATG GAG ACC AAG CTC ATC ACG TGG GGG GCA GAT ACC
 H N G L R D L A V A V E P V V F S R M E T K L I T W G A D T
 3312/991 GCC GCG TGC GGT GAC ATC ATC AAC GGC TTG CCC GTC TCT GCC CGT AGG GGC CAG GAG ATA CTG CTT GGG CCA GCC GAC GGA ATG GTC TCC
 A C G D I I N G L P V S A R R G Q E I L L G P A D G M V S
 3402/1021 AAG GGG TGG AGG TTG CTG CCG CCC ATC ACG GCG TAC GCC CAG CAG ACG AGA GGC CTC CTA GGG TGT ATA ATC ACC AGC CTG ACT GGC CGG
 K G W R L L A P I T A Y A Q Q T R G L L G C I I T S L T G R
 3492/1051 GAC AAA AAC CAA GTG GAG GGT GAG GTC CAG ATC GTG TCA ACT GCT ACC CAA ACC TTC CTG GCA ACG TGC ATC AAT GGG GTA TGC TGG ACT
 D K N Q V E G E V Q I V S T A T Q T C I N G V C W T
 3582/1081 GTC TAC CAC GGG GCC GGA ACG AGG ACC ATC GCA TCA CCC AAG GGT CCT GTC ATC CAG ATG TAT ACC AAT GTG GAC CAA GAC CTT GTG GGC
 V Y H G A G T R T I A S P K G P V I Q M Y T N V D Q D L V G
 3672/1111 TGG CCC GCT CCT CAA GGT TCC CGC TCA TTG ACA CCC TGT ACC TGC GGC TCC TCG GAC CTT TAC CTG GTC ACG AGG CAC GCC GAT GTC ATT
 W P A P Q G S R S L T P C T C G S S D L Y L V T R H A D V I
 3762/1141 CCC GTG CGC CGG CGA GGT GAT AGC AGG GGT AGC CTG CTT TCG CCC CGG CCC ATT TCC TAC TTA AAA GGC TCC TCG GGG GGT CCG CTG TTG
 P V R R R G D S R G S L L S P R P I S Y L K G S S G G P L L
 3852/1171 TGC CCC GCG GGA CAC GCC GTG GGC CTA TTC AGG GCC GCG GTG TGC ACC CGT GGA GTG GCT AAA GCG GTG GAC TTT ATC CCT GTG GAG AAC
 C P A G H A V G L F R A A A V A K A V D F I P V E N
 3942/1201 CTA GGG ACA ACC ATG AGA TCC CCG GTG TTC ACG GAC AAC TCC TCT CCA CCA GCA GTG CCC CAG AGC TTC CAG GTG GCC CAC CTG CAT GCT
 L G T T M R S P V F T D N S S P P A V P Q S F Q V A H L H A
 4032/1231 CCC ACC GGC AGC GGT AAG AGC ACC AAG GTC CCG GCT GCG TAC GCA GCC CAG GGC TAC AAG GTG TTG GTG CTC AAC CCC TCT GTT GCT GCA
 P T G S G K S T K V P A A A Q G Y K V L V L N P S V A A
 4122/1261 ACG CTG GGC TTT GGT GCT TAC ATG TCC AAG GCC CAT GGG GTT GAT CCT AAT ATC AGG ACC GGG GTG AGA ACA ATT ACC ACT GGC AGC CCC
 T L G F G A Y M S K A H G V D P N I R T G V R T I T T G S P
 4212/1291 ATC ACG TAC TCC ACC TAC GGC AAG TTC CTT GCC GAC GCG GGG TGC TCA GGA GGT GCT TAT GAC ATA ATA ATT TGT GAC GAG TGC CAC TCC
 I T Y S T Y G K F L A D G G C S G G A Y D I I I C D E C H S
 4302/1321 ACG GAT GCC ACA TCC ATC TTG GGC ATC GGC ACT GTC CTT GAC CAA GCA GAG ACT GCG GGG CGG AGA CTG GTT GTG CTC GCC ACT GCT ACC
 T D A T S I L G I G T V L D Q A E T A G A R L V V L A T A T A T

17/38

Fig. 11B-4

4392/1351 CCT CCG GGC TCC GTC ACT GTG TCC CAT CCT AAC ATC GAG GAG GGA GAT ACC GGA GAG ATC CCC TTT TAC GGC AAG GCT ATC
 P P G S V T T V S H P N I E E E V A L S T T T C T G A A G K A I
 4482/1381 CCC CTC GAG GTG ATC AAG GGG GGA AGA CAT CTC ATC TTC TGC CAC TCA AAG AAG AAG TGC GAC GAG CTC GCC GCG AAG CTG GTC GCA TTG
 P L E V I K G G R H L I F C H S K K K A A K L V A L
 4572/1411 GGC ATC AAT GCC GTG GCC TAC TAC CGC GGT CTT GAC GTG TCT GTC ATC CCG ACC AGC GGC GAT GTT GTC GTC GTG TCG ACC GAT GCT CTC
 G I N A V A Y Y R G L D V S V I P T S G D V V V S T D A L
 4662/1441 ATG ACT GGC TTT ACC GGC GAC TTC GAC TCT GAC ATA GAC TGC AAC ACG TGT GTC ACT CAG ACA GTC GAT TTC AGC CTT GAC CCT ACC TTT
 M T G F T G D F D S V I D C N T C V T Q T V D F S L D P T F
 4752/1471 ACC ATT GAG ACA ACC ACG CTC CCC CAG GAT GCT GTC TCC AGG ACT CAA CGC GGC AGG ACT GGC AGG GGC AAG CCA GGC ATC TAT AGA
 T I E T T T L P Q D A V S R T Q R G R T G R G T G R G G G A A G K P G I Y R
 4842/1501 TTT GTG GCA CCG GGG GAG CGC CCC TCC GGC ATG TTC GAC TCG TCC GTC CTC TGT GAG TGC TAT GAC GCG GGC TGT GCT TGG TAT GAG CTC
 F V A P G E R P S G M F D S S V L C E C Y D A G C A W Y E L
 4932/1531 AGC CCC GGC GAG ACT ACA GTT AGG CTA CGA GCG TAC ATG AAC ACC CCG GGG CTT CCC GTG TGC CAG GAC CAT CTT GAA TTT TGG GAG GGC
 T P A E T T V R L R A Y M N T P G L P V C Q D H L E F W E G
 5022/1561 GTC TTT ACG GGC CTC ACT CAT ATA GAT GCC CAT TTT TTA TCC CAG ACA AAG CAG AGT GGG GAG AAC TTT CCT TAC CTG GTA GCG TAC CAA
 V F T G L T H I D A H F L S Q T K Q S G E N F P Y L V A Y Q
 5112/1591 TGC GCT AGG GCT CAA GCC CCT CCC CCA TCG TGG GAC CAG ATG TGG AAG TGT TGT ATC CGC CTT AAA CCC ACC CTC CAT GGG
 A T V C A R A Q A P P P S S W D Q M W K C L I R L K P T L H G
 5202/1621 CCA ACA CCC CTG CTA TAC AGA CTG GGC GGT GTT CAG AAT GAA GTC ACC CTG ACG CAC CCA ATC ACC AAA TAC ATC ATG ACA TGC ATG TCG
 P T P L L Y R L G A V Q N E V T L T H P I T K Y I M T C M S
 5292/1651 GGC GAC CTG GAG GTC GTC ACG AGC ACC TGG GTG CTC GTT GGC GGC GTC V L A A A Y C L S T G C V
 A D L E V V T S T W V L V G G G G C T G C T G C C G C L A A Y C L S T G C V
 5382/1681 GTC ATA GTG GGC AGG ATC GTC TCC GGC AGC CCG GCA ATT ATA CCT GAC AGG GAG GTT CTC TAC CAG GAG TTC GAT GAG ATG GAA GAG
 V I V G R I V L S G K P A I I P D R E V L Y Q E F D E M E E
 5472/1711 TGC TCT CAG CAC TTA CCG TAC ATC GAG CAA GGG ATG ATG CTC GCT GAG CAG TTC AAG CAG AAG GCC CTC GGC CTC CTG CAG ACC GCG TCC
 C S Q H L P Y I E Q G M M L A E Q F K Q K A L G L L Q T A S
 5562/1741 CGC CAT GCA GAG GTT ATC ACC CCT GCT GTC CAG ACC AAC TGG CAG AAA CTC GAG GTC TTT TGG GCG AAG CAC ATG TGG AAT TTC ATC AGT
 R H A E V I T P A V Q T N W Q K L E V F W A K H M W N F I S
 5652/1771 GGG ATA CAA TAC TTG GCG GGC CTG TCA ACG GGT GGT AAC CCC GCC ATT GCT TCA TTG ATG GCT TTT ACA GCT GCC GTC ACC AGC CCA
 G I Q Y L A G L S T L P G N P A I A S L M A F T A A V T S P

18/38

Fig. 11B-5

5742/1801 CTA ACC ACT GGC CAA ACC CTC CTC TTC AAC ATA TTG GGG GGG TGG GTG GCT GCC CAG CTC GGC GCC CCC GGT GCC GCT ACT GCC TTT GTG
 L T T T G Q T L L F N I L G G W V A A Q L A P G A A T A F V
 5832/1831 GGT GCT GGC CTA GCT GGC GCC ATC GGC AGC GTT GGA CTG GGG AAG GTC CTC GTG GAC ATT CTT GCA GGG TAT GGC GCG GGC GTG GCG
 G A G L A G A I G S V G L G L G K V L V D I L A G Y G A G V A
 5922/1861 GGA GCT CTT GTA GCA TTC AAG ATC ATG AGC GGT GAG GTC CCC TCC ACG GAG GAC CTG GTC AAT CTG CTG CCC GGC ATC CTC TCG CCT GGA
 G A L V A F K I M S G E V P S T E D L V N L L L P A I L S P G
 6012/1891 GCC CTT GTA GTC GGT GTG GTC TGC GCA GCA ATA CTG CGC CGG CAC GTT GGC CCG GGC GAG GAG GCA GTG CAA TGG ATG AAC CGG CTA ATA
 A L V V G V C A A I L R R H V G P G E G A V Q W M N R L I
 6102/1921 GCC TTC GCC TCC CGG GGG AAC CAT GTT TCC CCC ACG CAC TAC GTG CCG GAG AGC GAT GCA GCC GCC CGC GTC ACT GCC ATA CTC AGC AGC
 A F A S R G N H V S P T H Y V P E S D A A R V T A I L S S
 6192/1951 CTC ACT GTA ACC CAG CTC CTG AGG CGA CTG CAT CAG TGG ATA AGC TCG GAG TGT ACC ACT CCA TGC TCC GGT TCC TGG CTA AGG GAC ATC
 L T V T Q L L R R L H Q W I S S E C T T P C S G S W L R D I
 6282/1981 TGG GAC TGG ATA TGC GAG GTG CTG AGC GAC TTT AAG ACC TGG CTG AAA GCC AAG CTC ATG CCA CAA CTG CCT GGG ATT CCC TTT GTG TCC
 W D W I C E V L S D F K T W L K A K L M P Q L P G I P F V S
 6372/2011 TGC CAG CGC GGG TAT AGG GGG GTC TGG CGA GGA GAC GGC ATT ATG CAC ACT CGC TGC CAC TGT GGA GCT GAG ATC ACT GGA CAT GTC AAA
 C Q R G Y R G V W R G D G I M H T R C H C G A E I T G H V K
 6462/2041 AAC GGG AGC ATG AGG ATC GTC GGT CCT AGG ACC TGC AGG AAC ATG TGG AGT GGG ACG TTC CCC ATT AAC GCC TAC ACC ACG GGC CCC TGT
 N G T M R I V G P R T C R N M W S G T F P I N A Y T T G P C
 6552/2071 ACT CCC CTT CCT GCG CCG AAC TAT AAG TTC GCG CTG TGG AGG GTG TCT GCA GAG GAA TAC GTG GAG ATA AGG CGG GTG GGG GAC TTC CAC
 T P L P A P N Y K F A L W R V S A E Y V E I R R V G D F H
 6642/2101 TAC GTA TCG GGT ATG ACT ACT GAC AAT CTT AAA TGC CCG TGC CAG ATC CCA TCG CCC GAA TTT TTC ACA GAA TTT GAC GGG GTG CGC CTA
 Y V S G M T T D N L K C P C Q I P S P E F F T E L D G V R L
 6732/2131 CAC AGG TTT GCG CCC CCT TGC AAG CCC TTG CTG CCG GAG GAG GTA TCA TTC AGA GTA GGA CTC CAC GAG TAC CCG GTG GGG TCG CAA TTA
 H R F A P P C K P L L R E E V S F R V G L H E Y P V G S Q L
 6822/2161 CCT TGC GAG CCC GAA CCG GAC GTA GCC GTG TTG ACG TCC ATG CTC ACT GAT CCC TCC CAT TCC TCC CAT ATA ACA GCA GAG GCG GCC GGG AGA AGG TTG
 P C E P E P D V A V L T S M L T D P S H I T A E A A G R L
 6912/2191 GCG AGA GGG TCA CCC CCT TCT ATG GCC AGC TCC TCG GCT AGC CAG CTG TCC GCT CCA TCT CTC AAG GCA ACT TGC ACC GCC AAC CAT GAC
 A R G S P P S M A S S Q L S A P S L K A T C T A N H D
 7002/2221 TCC CCT GAC GCC GAG CTC ATA GAG GCT AAC CTC CTG TGG AGG CAG GAG ATG GGC GGC AAC ATC ACC AGG GTT GAG TCA GAG AAC AAA GTG
 S P D A E L I E A N L L W R Q E M G G N I T R V E S E N K

19/38

Fig. 11B-6

7092/2251 GTG ATT CTG GAC TCC TTC GAT CCG CTT GTG GCA GAG GAG GAT GAG CGG GAG GTC TCC GTA CCT GCA GAA ATT CTG CGG AAG TCT CGG AGA
 V I L L D S F D P L V A E E D E R E V S V P A E I L R K S R R
 7182/2281 TTC GCC CGG GCC CTG CCC GTC TGG GCG CGG CCG GAC TAC AAC CCC CCG CTA GTA GAG ACG TGG AAA AAG CCT GAC TAC GAA CCA CCT GTG
 F A R A L P V W A R P D Y N P P P P L V E T TGG AAA AAG CCT GAC TAC GAA CCA CCT GTG
 7272/2311 GTC CAT GGC TGC CCG CTA CCA CCT CCA CCG CTT GGC AGC TCC TCA ACT TCC GGC ATT ACG GGC GAC AAT ACG ACA ACA TCC TCT GAG
 V H G C P L P P P R S P P V P P P P P R K K R T V V L T E S T L
 7362/2341 TCT ACT GCC TTG GCC GAG CTT GCC ACC AAA AGT TTT GGC AGC TCC TCA ACT TCC GGC ATT ACG GGC GAC AAT ACG ACA ACA TCC TCT GAG
 S T A L A E L A T K S F G S S S T S G I T G D N T T S S E
 7452/2371 CCC GCC CCT TCT GGC TGC CCC CCG GAC TCC TAT TCT TCC ATG CCC CCC CTG GAG GGG GAG CCT GGG GAT CCG GAT CTC
 P A P S G C P P D S D V E S Y S S M P P L E G E P G D P D L
 7542/2401 AGC GAC GGG TCA TGG TCG ACG GTC AGT AGT GGC GCC GAC ACG GAA GAT GTC GTG TGC TGC TCA ATG TCT TAT TCC TGG ACA GGC GCA CTC
 S D G S W S T V S S G A D T E D V V C C S M S Y S W T G A L
 7632/2431 GTC ACC CCG TGC GCT GCG GAA GAA CAA AAA CTG CCC ATC AAC GCA CTG AGC AAC TCG TTG CTA CGC CAT CAC AAT CTG GTG TAT TCC ACC
 V T P C A A E E Q K L P I N A L S N S L L R H CAC AAT CTG GTG TAT TCC ACC
 7722/2461 ACT TCA CGC AGT GCT TGC CAA AGG CAG AAG AAA GTC ACA TTT GAC AGA CTG CAA GTT CTG GAC AGC CAT TAC CAG GAC GTG CTC AAG GAG
 T S R S A C Q R Q K K V T F D R L Q V L D S H Y Q D V L K E
 7812/2491 GTC AAA GCA GCG GCG TCA AAA GTG AAG GCT AAC TTG CTA TCC GTA GAG GAA GCT TGC AGC TCG TTG CTA CGC CAT CAC AAT CTG GTG TAT TCC ACC
 V K A A A S K V K A N L L L S V E A C S L L R H CAC AAT CTG GTG TAT TCC ACC
 7902/2521 TTT GGC TAT GGG GCA AAA GAC GTC CGT TGC CAT GCC AGA AAG GCC GTA GCC CAC ATC AAC TCC GTG TGG AAA GAC CTT CTG GAA GAC AGT
 F G Y G A K A K D V R C H A R K A V A H I N S V W K K D L L E D S
 7992/2551 GTA ACA CCA ATA GAC ACT ACC ATC ATG GCC AAC AAC GAG GTT TTC TGC GTT CAG CCT GAG AAG GGG GGT CGT AAG CCA GCT CGT CTC ATC
 V T P I D T T I M A K N E V F C V Q P E K G G R K P A R L I
 8082/2581 GTG TTC CCC GAC CTG GGC GTG CCG GTG TGC GAG AAG ATG GCC CTG TAC GAC GTG GTT AGC AAC CTC CCC CTG GCC GTG ATG GGA AGC TCC
 V F P D L G V R V C E K M A L Y D V V S K L P L A V M G S S
 8172/2611 TAC GGA TTC CAA TAC TCA CCA GGA CAG CCG GTT GAA TTC CTC GTG CAA GCG TGG AAG TCC AAG AAG ACC CCG ATG GGG TTC TCG TAT GAT
 Y G F Q Y S P G Q R V E F L V Q A W K S K K T P M G F S Y D
 8262/2641 ACC CGC TGT TTT GAC TCC ACA GTC ACT GAG AGC GAC ATC CGT ACG GAG GCA ATT TAC CAA TGT TGT GAC CTG GAC CCC CAA GCC CGC
 T R C F D S T V T E S D I R T E A I Y Q C C D L D P Q A R
 8352/2671 GTG GCC ATC AAG TCC CTC ACT GAG AGG CTT TAT GTT GGG GGC CCT CTT ACC AAT TCA AGG GAA AAC TGC GGC TAC CGC AGG TGC CGC
 V A I K S L T E R L Y V G G P L T N S R G E N C G Y R R C R

20/38

Fig. 11B-7

8442/2701 GCG AGC GGC GTA CTG ACA ACT AGC TGT GGT AAC ACC CTC ACT TGC TAC ATC AAG GCC CGG GCA GCC TGT CGA GCC GCA GGG CTC CAG GAC
 A S G V L T T S C G N T L T T C Y I K A R A A C R A A G L Q D
 8532/2731 TGC ACC ATG CTC GTG TGT GGC GAC TTA GTC GTT ATC TGT GAA AGT GCG GGG GTC CAG GAG GAC GCG GCG AGC CTG AGA GCC TTC ACG
 C T M L V C G D L V V I C E S A G V Q E D A A S L R A F T
 8622/2761 GAG GCT ATG ACC AGG TAC TCC GCC CCC GGA AAG AGG GTC TAC TAC CTT ACC CGT GAC CCT ACA ACC CCC CTC GCG AGA GCC GCG TGG GAG ACA GCA
 E A M T R Y S A P P G D P P Q P E Y D L E L I T S C S N V
 8712/2791 TCA GTC GCC CAC GAC GGC GCT GGA AAG AGG GTC TAC TAC CTT ACC CGT GAC CCT ACA ACC CCC CTC GCG AGA GCC GCG TGG GAG ACA GCA
 S V A H D G A G K R V Y Y L T T ACC CGT GAC CCT ACA ACC CCC CTC GCG AGA GCC GCG TGG GAG ACA GCA
 8802/2821 AGA CAC ACT CCA GTC AAT TCC TGG CTA GGC AAC ATA ATC ATG TTT GCC CCC ACA CTG TGG GCG AGG ATG ATA CTG ATG ACC CAT TTC TTT
 R H T P V N S W L G N I I M F A P T L W A R M I L M T H F F
 8892/2851 AGC GTC CTC ATA GCC AGG GAT CAG CTT GAA CAG GCT CTT AAC TGT GAG ATC TAC GGA GCC TGC TAC TCC ATA GAA CCA CTG GAT CTA CCT
 S V L I A R D Q L E Q A L N C E I Y G A C Y S I E P L D L P
 8982/2881 CCA ATC ATT CAA AGA CTC CAT GGC CTC AGC GCA TTT TCA CTC CAC AGT TAC TCT CCA GGT GAA ATC AAT AGG GTG GCC GCA TGC CTC AGA
 P I I Q R L H G L S A F S L H S Y S P G E I N R V A A C L A
 9072/2911 AAA CTT GGG GTC CCG CCC TTG CGA GCT TGG AGA CAC CGG GCC CGG AGC GTC CGC GCT AGG CTT CTG TCC AGA GGA GGC AGG GCT GCC ATA
 K L G V P P L R A W R H R A R S V R A R L S R G R A A I
 9162/2941 TGT GGC AAG TAC CTC TTC AAC TGG GCA GTA AGA ACA AAG CTC AAA CTC ACT CCA ATA GCG GCC GCT GGC CGG CTG GAC TTG TCC GGT TGG
 C G K Y L F N W A V R T K L K L T P I A A A G R L D L S G W
 9252/2971 TTC ACG GCT GGC TAC AGC GGG GGA GAC ATT TAT CAC AGC GTG TCT CAT GCC CGG CCC CGC TGG TTC TGG TTT TGC CTA CTC CTG CTC GCT
 F T A G Y S G G D I Y H S V S H A R P R W F W F C L L L A
 9342/3001 GCA GGG GTA GGC ATC TAC CTC CTC CCC AAC CGA TGA
 A G V G I Y L L P N R

21/38

Fig. 12A-1

1	GCCAGCCCC	TGATGGGGC	GACACTCCAC	CATGAATCAC	TCCCCTGTGA	GGAACACTAG	TCTTACAGCA	GAAAGCGTCT	AGCCATGGCG	TTAGTATGAG	100
101	TGTCGTGAC	CTTCAGGAC	CCCCCTCCC	GGGAGAGCCA	TAGTGGTCTG	CGGAACCGGT	GAGTACACCG	GAATTGGCCAG	GACGACCGGG	TCCTTTCTTG	200
201	GATTAACCG	CTCAATGCCT	GAGATTGG	GGGTGCCCC	CGAAGACTGC	TAGCCAGTA	TGTTGGGTC	GCAGAAAGCC	TTGTGGTACT	GCCTATAGG	300
301	GATGTCGGA	GTGCCCCGG	AGGTCTGTA	GACCGTGCAC	CATGGAGCTC	GTAGATCTTA	GACTAGAGCC	CTGGAAGCAT	CCAGGAAGTC	AGCCTAAAC	400
401	TGCTTGACC	AAATGCTATT	GTAAAGTGT	GTGCTTTCAT	TGCCAAGTTT	GTTTCATAAC	AAAAGCTTTA	GGCATCTCCT	ATGGCAGGAA	GAAGCGGAGA	500
501	CAGCGACGAA	GACCTCTCTA	AGGCACTCAG	ACTCATCAAG	TTTCTCTATC	AAAGCAACCC	ACCTCCCAAT	CCCGAGGGGA	CCGACAGGC	CCGAAGGAAG	600
601	AATTCAGCT	TCTTAAGCTT	CGGGAGACG	TCGAGTCCAA	CCCTGGGCCC	GGATCTGTTA	ACATGATTGA	ACAAGATGGA	TTGACAGCAG	GTTCCTCCGC	700
701	CGCTTGGTG	GAGAGGCTAT	TCGGCTATGA	CTGGGACA	CAGACAATCG	GCTGCTCTGA	TGCGCGCGTG	TTCCGGCTGT	CAGCGCAGGG	GCGCCCGGTT	800
801	TTTTTGTCA	AGACCGACCT	GTCCGGTGCC	CTGAATGAAC	TGCAGGACGA	GGCAGCGCGG	TATGCTTGGC	TGCGCACGAG	GGCGTTCCT	TGCGCAGCTG	900
901	TGTCGACGT	TGTCACTGAA	GGGGAGAGG	ACTGGCTGCT	ATTGGGCGAA	GTGCGCGGGC	AGGATCTCCT	GTCATCTCAC	CTTGTCTCTG	CCGAGAAAGT	1000
1001	ATCCATCATG	GCTGATGCAA	TGCGGCGGCT	GCATACGCTT	GATCGCGCTA	CCTGCCCAT	CGACCAACAA	GCGAAACATC	GCATCGAGCG	AGCACGTACT	1100
1101	CGGATGGAAG	CCGTCTTGT	CGATCAGGAT	GATCTGGACG	AAGAGCATCA	GGGCTCGCG	CCAGCCGAAC	TGTTCCGCGAG	GCTCAAGGCG	CGCATGCCCG	1200
1201	ACGGGAGGA	TCTGTCGTG	ACCATGGCG	ATGCTGCTT	GCCGAATATC	ATGTGTGAAA	ATGGCCGCTT	TTCTGATTC	ATCGACTGTG	GCCGGCTGGG	1300
1301	TGTGGCGGAC	CGCTATCAGG	ACATAGCGTT	GGCTACCCCT	GATATTGCTG	AAGAGCTTGG	CGCGAATGAG	GCTGACCGCT	TCCCTGCTGT	TTACGGTATC	1400
1401	GGCGTCCCG	ATTGCGACGG	CATCGCCCTC	TATCGCCCTC	TTGACGAGTT	CTTCTGAGTT	TAAACAGACC	ACAACGGTTT	CCCTCTAGCG	GGATCAATTC	1500
1501	CGCCCTCTC	CTCCCTCCC	CCCTAACCT	ACTGGCCGAA	GCGGCTTGA	ATAAGGCCGG	TGTGCGTTTG	TCTATATGTT	ATTTTCCACC	ATATTGCCCT	1600
1601	CTTTTGGCAA	TGTGAGGGC	CGGAACCTG	GCCCTGCTT	CTTGACGAGC	ATTCTAGGG	GTCCTTCCCG	TCTCGCCAAA	GGATGCAAG	GTCCTGTGAA	1700
1701	TGTCGTGAG	GAAACAGTT	CTCTGGAAC	TTCCTGGAAG	CAACAACTG	CTGTAGCGAC	CCTTTGACAG	GAGCGGAACC	CCCCACCTGG	CGACAGGTGC	1800
1801	CTCTGCGCC	AAAAGCCACG	TGTATAAGAT	AGCTGTCAA	AGGCGGCAAC	ACCCAGTGC	GAGTGTGTA	GTTGGATAGT	TGTGAAAGA	GTCAAATGGC	1900
1901	TCTCTCAAG	CGTATTCAAC	AAGGGCTGA	AGGATGCCCA	GAAGGTACCC	CATTTGTTGA	AAAACACGAT	AATACCATGG	CGCCCATATC	TTACATGTGT	2000
2001	TTAGTCGAGG	TTAAAAAAG	TGTAGGCCC	CCGAACCCG	GGGACGTGTT	TTTCTTTTGA	AAAACACGAT	GAAGGTGAGG	GTGAGGTCCA	ACTGCTACCC	2200
2101	CAGCAGAGCA	GAGGCTCTCT	AGGGTGTATA	ATCACAGCC	TGACTGGCCG	GGGCGCGGAA	CGAGGACCAT	CGCATCACCC	AAGGTCTCTG	TCATCCAGAT	2300
2201	AAACCTTCT	GGCAAGTGC	ATCAATGGGG	TATGTGGAC	TGCTACCAAC	CCCGCTCAAT	GACACCTCTG	ACCTGCGGCT	CCTCGGACCT	TTACCTGGTC	2400
2301	GTATACCAAT	GTGACCAAG	ACCTTGTGG	CTGGCCGCT	CCTCAAGGTT	TAGCTGCTT	TCGCCCCGGC	CCATTTCTTA	CTTGAAGGC	TCCTCGGGG	2500
2401	ACGAGGCACG	CCGATGTCT	TCCCGTGGC	GGGCTTAT	ATAGCAGGGG	GTGTGCAACC	CTGGAGTGGC	TAAAGCGGTG	GACTTTATCC	CTGTGGAGAA	2600
2501	GTCCGCTGTT	GTGCCCCGG	GGACACGCG	TGCGCTATT	CAGGCGCGG	CAGAGTGGC	CCAGAGCTTC	CAGGTGCCC	ACCTGATGC	TCCCACGGC	2700
2601	CCTAGGACA	ACCATGAGAT	CCCCGCTGT	CACGGACAA	TCCTCTCCAC	GGTGTGGTG	CTCAACCCCT	CTGTTGCTGC	AACGCTGGC	TTTGGTGTCT	2800
2701	AGCGGTAGA	GCACAAAGT	CCCCGCTGG	TACGAGCCC	AGGGCTACAA	ACAATTACCA	CTGGCAGCCC	CATCACGTAC	TCACCTACG	GCAAGTCTCT	2900
2801	ACATGTCCA	GGCCCATGG	GTGTATCCTA	ATATCAGGAC	CGGGTGAGA	AGTGCCACTC	CACGGATGCC	ACATCCATCT	TGGCATCGG	CACGTCTCTT	3000
2901	TGCCGACGCG	GGGTGCTCAG	GAGGTGCTTA	TGACATAATA	ATTTGTGACG	CCCTCCGGG	TCCGTCACCT	TGTCCCATCC	TAACATCGAG	GAGTTGCTC	3100
3001	GACCAAGCAG	AGACTGCGG	GGCGAGACTG	GTTGTGCTCG	CCACTGCTAC	GTGATCAAGG	GGGGAAGACA	TCTCATCTTC	TGCCACTCAA	AGAAGAGATG	3200
3101	TGTCACACAC	CGGAGAGATC	CCCTTTTACG	GCAAGGCTAT	CCCCCTCGAG	ACTACCGGG	TCTTGACGTT	TCTGTCACTC	CGACAGCGG	CGATGTGTC	3300
3201	CGACGAGTGC	GGCGGAAGC	TGGTGCAT	GGGATCAAT	GCGGTGGCT	TGTGATAGAC	TGCAACACGT	GTGTCACTCA	GACAGTCGAT	TTACGCTTGT	3400
3301	GTCGTGTGCA	CCGATGCTCT	CATGACTGGC	TTTACCGGG	ACTTCGACTC	AGGACTCAAC	GCGGGGCGAG	GACTGGCAGG	GGGAAGCCAG	GCATCTATAG	3500
3401	ACCTTACCTT	TACCATTTAG	ACAACCAACG	TCCCCAGGA	TGCTGTCTCC	TCTGTGAGTG	CTATGACGCG	GGCTGTGCTT	GGTATGAGCT	CACGCCGCC	3600
3501	ATTGTGGCA	CTGGGGGAGC	GCCCTCCGG	CATGTTCCAG	TCGTCGGTCC	GTGCCAGGAC	CATCTTGAAT	TTTGGGAGG	CGCTTTTACG	GGCCTCACTC	3700
3601	GAGACTACAG	TTAGGCTAGC	AGCGTACATG	AACACCCCG	GGCTTCCGCT	CTGTGAGTG	TAGCTGTACCA	AGCCACCGTG	TGCGTAGGG	GCTCAAGCCC	3800
3701	ATATAGATGC	CCACTTTTGA	TCCAGACAAA	AGCAGAGTGG	GGAGAATCTT	CCCTACCTGG	GAGCTGTACCA	AGCCACCGTG	CTGCTATACA	GACTGGGCGC	3900
3801	TCCCCATCC	TGGGACACGA	TGTGGAAGTG	TTTGTCCCG	CTTAAACCCA	CCCTCCATGG	GCCAAACACC	CTGCTATACA	GACTGGGCGC	TGTTCAAGAT	3900
3901	GAAGTACACC	TGAGSCACCC	AATCACCCAA	TACATCATGA	CATGCATGTC	GGCCGACCTG	GAGGTCTGTC	CGAGCACTTG	GGTCTCGTT	GCGGCGCTCC	4000
4001	TGGCTGCTCT	GGCGCGGTAT	TGCTGTGTC	CAGGCTGCGT	GCTCATAGTG	GGCAGGATCG	TCTTGTCCCG	GAAGCCCGCA	ATTATACCTG	ACAGGGAGGT	4100

22/38

Fig. 12A-2

4101 TCTCTACCAG GAGTTCGATG AGATGGAAGA GTGCTCTCAG CACTTACCGT
 4201 GGCCCTCTGC AGACCGCGTC CCGCCATGCA GAGTTATCA CCCCTGCTGT
 4301 ATTTATCATG TGGGATACAA TACTTGGCGG GCTGTGTAAC GCTGCCCTGT
 4401 ACTAACCAC TGGGATACAA TACTTGGCGG GCTGTGTAAC GCTGCCCTGT
 4501 CTAGCTGGCG CCGCCATGCG CAGCGTGGGA TCTGCTGTGA
 4601 AGATCATGCG CCGTACGATG GCGCAGGTCG CCGCGGCGGA
 4701 AATACTGCGC CCGCAGGTCG CCGCGGCGGA GCGCAGGTCG CCGCGGCGGA
 4801 TACGTGCGCG AGACGATGCG CCGCGGCGGA GCGCAGGTCG CCGCGGCGGA
 4901 AGTGACAC TCCATGCTCC GGTTCCTGGC CCGCGGCGGA GCGCAGGTCG
 5001 GCCACAACTG CCGTGGATTC CCGCGGCGGA GCGCAGGTCG CCGCGGCGGA
 5101 GAGTACACTG GACATGTCAA AAGCGGACG ATGAGGATCG TCGGCTCTAG
 5201 CGGCGCCCTG TACTCCCTTT CCGCGGCGGA GCGCAGGTCG CCGCGGCGGA
 5301 CTACGCTATG GGTATGACTA CTGACATCT TAAATGCCG TGCGAGATCC
 5401 CGCGCCCTTT GAAAGCCCTT GGTACGCTCC ATGCTCACTG ATGCTCACTG
 5501 ACGTAGCCGT GTTACGCTCC GGTACGCTCC ATGCTCACTG ATGCTCACTG
 5601 CTCTCTGGGT AGCAGCTGT CCGCTCCATC CCGCTCCATC CCGCTCCATC
 5701 AGGTACGCTG TGGCGGCGGA CATCACAGG ATGCTCACTG ATGCTCACTG
 5801 AGGTACGCTG TGGCGGCGGA CATCACAGG ATGCTCACTG ATGCTCACTG
 5901 GTGGGAAAG CTTGACTACG AACCACTGT GGTCCATGCG TGCCCGCTAC
 6001 GTCTCTACCG AATCAACCTT ATCTACTGCG TTGCGCGGAG TTGCGCGGAG
 6101 CATCTCTGTA GCGCGCCCTT TCTGCTGCGC CCGCGGCGGA GCGCAGGTCG
 6201 CAGCGACGGG TATGCTGCGA CCGTCTAGT AGGCGGCGGA GCGCAGGTCG
 6301 TGGCTGCGCG AAGAACAAA ATGCGCCATC CCGCTCCATC CCGCTCCATC
 6401 AAGGCGAGAA GAAAGTCAA TTTGACAGC TGAAGTCTT GGACAGCTAT
 6501 TAACTTGCTA TCGTAGAGG AAGCTTGCAG CCGTACGCGC CCACATTCAG
 6601 AAGGCGCTAG CCACATCAA CTCCGTGCTG AAGACCTTC TGAAGACAG
 6701 TTAGGCTGTA GAGGCGGCTG CGTAAGCCAG CTGCTCTCAT CGTGTTCCTC
 6801 CAAGCTCCCT CTGCGCTGTA TGGGAAGCTC CTACGGATTC CAATCTCAC
 6901 CCGATGCGGT TCTGCTATGA TACCGGCTGT TTTGACTCCA CAGTCACTGA
 7001 CCCAAGCCCG CGTGGCCATC AAGTCCCTCA CTGAGAGGCT TTAATGTTGG
 7101 CGCGAGGCGG GTACTGACAA CTAGCTGTGG TACACCCCTC ACTTGCTACA
 7201 CTGCTGTGTG GCGACGACTT AGTCTGTATC TGTGAAGTTC CGGGGTGCTA
 7301 CGCGCCCTCC CTTACCCGCTG ACCCTACAA CCGCTCTGCG AGAGCCGCTT
 7401 GGTCTACTAC GTTACCCGCTG CCGCGGAGAT GCGTCTATGA CCCATTCTCT
 7501 ATGTTTGGCC CCACACTGTG AGCGGAGATG ATCTGATGTA CCCATTCTCT
 7601 TCTACGAGC CTGCTACTCC ATAGAACAC CATGCCCTCAG AAACTTGGG GTCCCGCCCT
 7701 TGAATCAAT AGGTGCGCG CATGCCCTCAG AAACTTGGG GTCCCGCCCT
 7801 AGAGGAGGCA GGGCTGCCAT ATGTGGCAAG TACCTTCTCA ACTTGGGCTG
 7901 TGTCCGGTGA GTTACCGGCT GGCTACAGCG GGGAGACAT TTAACACAG
 8001 TGCAGGGTGA GGCATCTACC TCCTCCCAA CCGATGAAGG TTGGGGTAAA
 8101 TTTTCTCTTT TTTTCTCTTT TTTTCTCTTT TTTTCTCTTT TTTTCTCTTT
 8201 AGGTCCTGTA GCGCATGAC TGCAGAGAT GCTGATACTG GCTCTCTCTG
 8300
 ACATCGAGCA AGGATGATG CTGCGTGTAG AGTTCAAGCA GAAGGCGCTC 4200
 CCAGACCAAC TGGCAGAAC TCAGGCTCTT TGGGCGAAG CACATGTGGA 4300
 AACCCCGCA TTGCTTCAAT GATGGTTTT ACAGTGCCTC TCACAGCCC 4400
 CTGCCAGCT CGCCGCCCC GGTGCGCTA CTGCTTTGT GGTGCTGGC 4500
 CATCTTGA CCGTCTGGC GGGCTGTG GAGGCTCT GTAGCATCA 4600
 CCGCCATA TCTGCTGTG ACCCTTGA TCTGCTGTG TCTGCGCAGC 4700
 ACCGCTAAT AGCTTTCGG TCCCGGGGA ACCATGTTT CCCCAGCAC 4800
 CTTACTGTA ACCAGCTCC TGAGGCACT GATCAGTG ATAAGCTCG 4900
 ATATGCGAG TGTGAGCGA CTTTAAAGC TGCTGAAAG CCAAGTCAAT 5000
 GGTCTGGC AGGAGACGG ATTATGACA CTGCTGCA CTGTGAGCT 5100
 GACTGACG AACATGTGA GTGGAGCTT CCCCATTAC GCCTACACA 5200
 AGGTGTCTG CAGAGGAATA CTTTAAAGC GTGGAGCTT CCGACTTCCA 5300
 CATGCCCCG ATTTTACA GAATGGAGC GGTGCGCT ACACAGTTT 5400
 ACTCCACAG TACCCGTGG GTCGCAAT ACCTTGCAG CCCGACCCG 5500
 GAGCGGCGG GAGAAGGTT GCGGAGAGG TCACCCCTT CTATGCGCAG 5600
 CCAACCATGA CTCCCTGAC GCGAGCTCA TAGAGCTAA CCTCTGTG 5700
 GGTGATCTG TACTCTCTG ATCCGTTGT GGAGAGGAG GATGACGGG 5800
 GCGCTGCCG TCTGGCGCG CCGGACTAC AACCCCGC TAGTAGAGC 5900
 CACTCCACG GTCCCTCTT GTCCCTCCG CTCGGAATA GCGTACGGT 6000
 AAGTTTGGC AGCTCTCAA CTTCCGCTA TACGGGCGC AATACACAA 6100
 TCTTATCTT CCATGCGCG CCGGAGGG GAGCTTGGG ATCCGATCT 6200
 TCGTGTGCT CTCAATGCT TATCTTGA CAGCGCAC CTGACCCCG 6300
 GCTAGGCTT CACAATCTG GTATCTCC CACTTACG AGTGTGTC 6400
 TACAGGAGG TGCTCAAGA GGTCAAGCA GCGGCTCAA AAGTGAAGC 6500
 CCAATCCAA GTTTGGCTT GGGGCAAG ACCTCCGTT CCAATGCTG 6600
 TGTAAACCA ATAGACATA CCATATGCG CAAGAACGAG GTTTCTGCG 6700
 GACTGGGCG TGGCGGTG CGAGAGATG GCCTGTAGC ACCTGCTAG 6800
 CAGACAGCG GGTGAATC CTGCTCAA CCGTGAAGT CAAGAAGAC 6900
 GAGGACATC GTTACGAGG AGGCAATTA CCAATGTTT GACCTGGAC 7000
 GCGCTCTTA CCAATCAAG GGGGCAAG TCGGCTACC GAGGTGCG 7100
 TCAAGCGCG GCGAGCTCT GAGCGCGAG GGTCCAGGA CTGACCATG 7200
 GAGGAGCGG CCGAGCTGA GAGCTTCA GAGGCTATG ACCAGTACT 7300
 ACATCATG CTCTCAAGT GTCAGTGC CACGACGGG CTGGAAGAG 7400
 GGGAGACAG AAGACACACT CCAGTCAAT CCGGCTAG CAACATAAT 7500
 TAGGCTCTC ATAGCCAGG ATCAGTTGA ACAGCTCTT AACTGTGAG 7600
 CAAGACTCC ATGGCTCAG CGCAATTA CTCACAGT ACTCTCAG 7700
 TGGAGCTTG GAGACACCG CCGCGAGCG TCCGCTAG GCTTCTGTC 7800
 AAGAACAAAG CTCAACTCA CTCCATAGC GCGCTGCG CCGTGGACT 7900
 GTGCTCAT CCGCGCCCG TGTCTCTG TTTTGGCTT TCTTCTCTG 8000
 CACTCCGCG TCTTAAAGCA TTTTCTGTT TTTTCTGTT TTTTCTGTT 8100
 CTTCTTTAA TGGTGGCTC ATCTAGCCC TAGTCACGG TAGCTGTGA 8200
 AGATCATGT GGTGCGCATG GCATCTCCAC CTCTCGCGG TCCGACCTG 8300

23/38

Fig. 12A-3

8301 GCATCGGAAG GAGGACGGAC GTCCACTCGG ATGGCTAAGG GAGTCTAGAC
 8401 GGCCAAATTC GTAATCATGG TCATAGCTGT TTCTGTGTGG AAATGTTTAT
 8501 CTGGGTGTC TAATGATGGA CTAACCTCAC ATTAATTTGG TTGGCTCAG
 8601 GGCCACGCG CGGGAGAGG CGGTTTCGCT ATTTGGGCGT CTTCCGCTTC
 8701 CAGTCACTC AAAGCGGTA ATACGGTTAT CCACAGATC AGGGATTAAC
 8801 AAAGGCGCG TTGCTGGCG TTTTCCATAG GCTCCGCC CCGTACGAGC
 8901 TAAAGATACC AGCGTTTCC CCCTGGTGC TCCTCTCTGT
 9001 CCGTGGCGT TTCTCATG TCACGGTGT TCGATCTCAG TTCGGTGTAG
 9101 CGCTGCGCC TTATCGGTA ACTATGCTT TGATCTCAAC CCGTAAAGC
 9201 AGGTATGAG GCGGTGCTAC AGAGTCTTG AGTGGTGGC CTAACCTAGG
 9301 CCTTCGAAA AAGAGTTGGT AGCTCTTGAT CCGCAACA AACCAACGCT
 9401 AGGATCTCAA GAAGATCCTT TGATCTTTC TAGCGGTCT GACGCTCAGT
 9501 ATCTTCACCT AGATCCTTTT AAATTAATA TGAAGTTTA AATCAATCTA
 9601 AGGCACCTAT CTCAGCGATC GTCTATTTC GTTCATCCAT AGTTCCCTGA
 9701 CAGTGTGCA ATGATACCGC GAGACCCACG CTCACCGGT CCAGATTAT
 9801 ACTTTATCCG CCTCCATCCA GTCTATTAT TGTGCTGCT AAGCTAGAGT
 9901 GCATCTGGT GTACGCTCG TCCTTTGGTA TGCTTTCATT CAGCTCCGCT
 10001 GGTAGCTCC TTCGGTCTC CGATCTGTT TGTGCTGTT CAGAGTTAAG
 10101 CCATCGTAA GATGCTTTT CAGTCTGTT AGTAAGTGT CATCATTTGA
 10201 GGGATAATAC CGGCCACAT AGCAGAACTT TAAAGTGT CATCATTTGA
 10301 CAGTTCGATG TAACCCACTC GTGACCCAA CTGATCTTCA GCATCTTTA
 10401 AAAAGGGAA TAAGGCGGAC ACGGAATGT TGAATACTCA TACTCTTCT
 10501 ACATATTGA ATGTATTAG AAAAATAAAC AAATAGGGT TCCGCGACA
 10601 GCGGGTGTG GTGGTTACG GCAAGCTCT AAATCGGGC CCACGCGCC
 10701 GGCTTTCCC GTCAAGCTCT AAATCGGGC TGTATAGCGG TTTTTCGCC
 10801 CACGTAGTG GCACTGCCC TGATAGACGG TTTTTCGCC TTTGACGTTG
 10901 CAACCTATC TGGTCTATT CTTTGTATT ATAGGGATT TTGCGGATT
 11001 TTTTACAAA TATTACAAA ATATTACGT TTACAATTTC CCATTCGCA
 11101 ATTACGCCAG CTGGCGAAG GGGATGTGC TGAAGGCGA TTAAGTTGGG
 11201 AAGCTGACTT GTTCAGCGGC CGCTAATACG ACTCACTATA
 TGAATTCGT CGACGAGCTC CCTATAGTGA GTCGATCTG GTCGATCTG
 CCGTCAACA TTCCACACAA CACATCGGT AACCTGCTG GTCGATCTG
 TGCCCGCTT CCAGTCGGA AACCTGCTG GTCGATCTG GTCGATCTG
 CTCGCTCAT GACTGCTGC AATAGGCGC AAAAGGCGC AAAAGGCGC
 GCAGGAAGA ACATGTGAG CATGCTGAG AGTACAGGT GGCAGGCGC
 ATCACAAA TCGACGCTCA AGTACAGGT GGCAGGCGC GGCAGGCGC
 TCCACCTCT CCAAGCTGG GATACCTGC GATACCTGC GATACCTGC
 GTCTGCTGG CCAAGCTGG GATACCTGC GATACCTGC GATACCTGC
 ACAGTTATC GCCATGGA CACGCTGGA CACGCTGGA CACGCTGGA
 CTACCTAGA AGACAGTAT TTGGTATCTG TTGGTATCTG TTGGTATCTG
 GGTAGCGGT GTTTTTTGT TTGCAAGCAG CAGATTACG GCAGAAAAA
 GGAACGAAA CTCACGTTAA GGTATTTGG TCATGAGAT ATCAAAAGG
 AAGTATATAT GAGTAACTT GGTCTGACG TTAATCAGT TTAATCAGT
 CTCCCGTCT GTAGATAAC TACGATACG GAGGCTTAC CATCTGCCC
 CAGCAATAA CCAGCCAGC GGAAGGCGC GGAAGGCGC GGAAGGCGC
 AAGTAGTTC CCAGTTAATA GTTTGCGCA CTTTGTGCT ATTGTACG
 TCCCAACGAT CAAGGCGAGT TACATGATCC CCAATGTTG GCAAAAAA
 TGTATACAT CATGTTATG GACGACTGC ATAATTCTCT TACTGTCTAT
 CTGAGATAG TGTATGCGC GACCGAGTTG CACTTACCG TGTGATCTG
 AAAGCTTCT CGGGCGGAA ACTCTCAAG ATCTTACCG TGTGATCTG
 CTTTCAATAT TATTGAAGC TTTATCAGG TATTGTCTC AATGCGGAT
 TTTCCCGAA AAGTCCACG TGACGCGCG CATTAAGCGC CATTAAGCGC
 TCCCTTCGT TCCTTTCGT TCTTTCCTT CTTTTCCTT CTTTTCCTT
 TAGGCTTJA CGGCACCTCG ACCCAAAA ACTTGATTG GGTGATGTT
 GAGTCCACG TCTTTAATG TGGACTCTG TCCAAACTG GAACACACT
 CCGCTATTG GTTAAAAAT GAGTCTTTT AACAAAAAT TAACGGAAT
 TTCAAGGCTG CCACTGTTG GGAAGGCGA TCGGTGCGG CCTCTGCT
 TAAGGCCAG GTTTTCCAG TCACGAGCTT GTCAGGCTG GTCAGGCTG

24/38

Fig. 12B-1

2077/1 ATG GCG CCC ATC ACG GCG TAC GCC CAG CAG ACC AGA GGC CTC CTA GGG TGT ATA ATC ACC AGC CTG ACT GGC CGG GAC AAA AAC CAA GTG
 M A P I T A Y A Q Q CAG CAG ACC AGA GGC CTC CTA GGG TGT ATA ATC ACC AGC CTG ACT GGC CGG GAC AAA AAC CAA GTG
 2167/31 GAG GGT GAG GTC CAG ATC GTG TCA ACT GCT ACC CAA ACC TTC CTG GCA ACG TGC ATC AAT AAT GGG GTA TGC TGG ACT GTC TAC CAC GGG GCC
 E G E V Q I V S T A T Q T T F L A T C I N G V C W T V Y H G A
 2257/61 GGA ACG AGG ACC ATC GCA TCA CCC AAG GGT CCT GTC ATC CAG ATG TAT ACC AAT GTG GAC CAA GAC CTT GTG GGC TGG CCC GCT CCT CAA
 G T R T I A S P K G P V I Q M Y T N V D Q D L V G W P A P Q
 2347/91 GGT TCC CGC TCA TTG ACA CCC TGT ACC TGC TCC TCG GAC CTT TAC CTG GTC ACG AGG CAC GCC GAT GTC ATT CCC GTG CGC CGG CGA
 G S R S L T P C T C G S S D L Y L V T R H A D V I P V R R
 2437/121 GGT GAT AGC AGG GGT AGC CTG CTT TCG CCC CGG CCC ATT TCC TAC TTG AAA GGC TCC TCG GGT CCG CTG TTG TGC CCC GCG GGA CAC
 G D S R G S L L S P R P I S Y L K G S TCG TCG GGT CCG CTG TGC L L C P L C P A G H
 2527/151 GCC GTG GGC CTA TTC AGG GCC GCG GTG TGC ACC CGT GGA GTG GCT AAA GCG GTG GAC TTT TAT CCT GTG GAG AAC CTA GGG ACA ACC ATG
 A V G L F R A A V C T R G V A K A V D F I P V E N L G T T M
 2617/181 AGA TCC CCG GTG TTC ACG GAC AAC TCC TCT CCA CCA GCA GTG CCC CAG AGC TTC CAG GTG GCC CAC CTG CAT GCT CCC ACC GGC AGC GGT
 R S P V F T D N S S P P A V P Q S F Q V A H L H A P T G S G
 2707/211 AAG AGC ACC AAG GTC CCG GCT GCG TAC GCA GCC CAG GGC TAC AAG GTG TTG GTG CTC AAC CCC TCT GTT GCT GCA ACG CTG GGC TTT GGT
 K S T K V P A A Y A A Q G Y K V L V L N P S V A A T L G F G
 2797/241 GCT TAC ATG TCC AAG GCC CAT GCG GTT GAT CCT AAT ATC AGG ACC GGG GTG AGA ACA ATT ACC ACT GGC AGC CCC ATC ACG TAC TCC ACC
 A Y M S K A H G V D P N I R T G V R T I T G S P I T Y S T
 2887/271 TAC GGC AAG TTC CTT GCC GAC GCG GGT TCA GGA GGT GCT TAT GAC ATA ATA ATT TGT GAC GAG TGC CAC TCC ACG GAT GCC ACA TCC
 Y G K F L A D G G C S G G A Y D I I C D E C H S T D A T S
 2977/301 ATC TTG GGC ATC GGC ACT GTC CTT GAC CAA GAG ACT GCG GGG GCG AGA CTG GTT GTG CTC GCC ACT GCT ACC CCT CCG GGC TCC GTC
 I L G I G T V L D Q A E T A G A R L V V L A T A T P P G S V
 3067/331 ACT GTG TCC CAT CCT AAC ATC GAG GAT GTT GCT CTG TCC ACC ACC GGA GAG ATC CCC TTT TAC GGC AAG GCT ATC CCC CTC GAG GTG ATC
 T V S H P N I E E V A L S T T G E I P F Y G K A I P L E V I
 3157/361 AAG GGG GGA AGA CAT CTC ATC TTC TGC CAC TCA AAG AAG TGC GAC GAG CTC GCC GCG AAG CTG GTC GCA TTG GGC ATC AAT GCC GTG
 K G G R H L I F C H S K K K C D E L A A K L V A L G I N A V
 3247/391 GCC TAC TAC CGC GGT CTT GAC GTG TCT GTC ATC CCG ACC AGC GGC GAT GTT GTC GTC GAT TCG ACC GAT GCT CTC ATG ACT GGC TTT ACC
 A Y Y R G L D V S V I P T S G D V V V V S T D A L M T G F T
 3337/421 GGC GAC TTC GAC TCT GTG ATA GAC TGC AAC ACG TGT GTC ACT CAG ACA GTC GAT TTC AGC CCT ACC TTT ACC ATT GAG ACA ACC
 G D F D S V I D C N T C V T Q T V D F S L D P T F T I E T T

3427/451	3427/451	CCC CAG GAT GCT GTC TCC AGG ACT CAA CGC CGG GGC AGG ACT GGC AGG GGG AAG CCA GGC ATC TAT AGA TTT GTG GCA CCG GGG
3427/451	3427/451	ACG CTC T L P Q D A V S R T Q R G R T G R G K P G I Y R F V A P G
3517/481	3547/491	TCC GGC ATG TTC GAC TCG TCC TGT GAG TGC TAT GAC GCG GGC TGT GGT TGG TAT GAG CTC ACG CCC GCC GAG ACT
3517/481	3547/491	G E R P S G M F D S V L C E C Y D A G C A W Y E L T P A E T
3607/511	3637/521	CGA GCG TAC ATG AAC ACC CCG GGG CTT CCC GTG TGC CAG GAC CAT CTT GAA TTT TGG GAG GGC GTC TTT ACG GGC CTC
3607/511	3637/521	T V R L R A Y M N T P G L P V C Q D H L E F W E G V F T G L
3697/541	3727/551	GAT GCC CAC TTT TTA TCC CAG ACA AAG CAG AGT GGG GAG AAC TTT CCT TAC CTG GTA GCG TAC CAA GCC ACC GTG TGC GCT
3697/541	3727/551	I D A H F L S Q T K Q Q S G E N F P Y L V A Y Q A T V C A
3787/571	3817/581	GCC CCT CCC CCA TCG TGG GAC CAG ATG TGG AAG TGT TTG ATC CGC CTT AAA CCC ACC CTC CAT GGG CCA ACA CCC CTG CTA
3787/571	3817/581	A Q A P P P S W D Q M W K C L I R L K P T L H G P T P T P T P L L
3877/601	3907/611	GTC GGC GCT GTT CAG AAT GAA GTC ACC CTG ACG CAC CCA ATC ACC AAA TAC ATC ATG ACA TGC ATG TCG GCC GAC CTG GAG GTC
3877/601	3907/611	L G A V Q N E V T L T T H P I T K Y I M T C M S A D L E V
3967/631	3997/641	ACC TGG GTG CTC GTT GGC GGC GTC CTG GCT GCT CTG GCC GCG TAT TGC CTG TCA ACA GGC TGC GTG GTC ATA GTG GGC AGG
3967/631	3997/641	S T W V L V G V L A A L A A Y C L S T G C V V I V G R
4057/661	4087/671	TCC GGG AAG CCG GCA ATT ATA CCT GAC AGG GAG GTT CTC TAC CAG GAG TTC GAT GAG ATG GAA GAG TGC TCT CAG CAC TTA
4057/661	4087/671	I V L S G K P A I I P D R E V L Y Q E F D E M E C S Q H L
4147/691	4177/701	GAG CAA GGG ATG ATG CTC GCT GAG CAG TTC AAG GCC CTC GGC CTC CAG ACC CCG TCC CGC CAT GCA GAG GTC
4147/691	4177/701	P Y I E Q G M L A E Q F K Q K A L G L L Q T A S R H A E V
4237/721	4267/731	GCT GTC CAG ACC AAC TGG CAG AAA CTC GAG GTC TTT TGG GCG AAG CAC ATG ATG TGC AAT TTC ATC AGT GGG ATA CAA TAC TTG
4237/721	4267/731	I T P A V Q T N W Q K L E V F W A K H M W N F I S G I Q Y L
4327/751	4357/761	TCA ACG CTG CCT GGT AAC CCC GCT ATT GCT TCA TTG ATG GCT TTT ACA GCT GCC GTC ACC AGC CCA CTA ACC ACT GGC CAA
4327/751	4357/761	S T L P G N P A I A S L M A F T A A V T S P L T T G Q
4417/781	4447/791	TTC AAC ATA TTG GGG GGG TGG GTG GCT GCC CAG CTC GCC CCC GGT GCC GCT ACT GCC TTT GTG GGT GCT GGC CTA GCT
4417/781	4447/791	F N I L G G W V A A Q L A A P G A T A F V G A G L A
4507/811	4537/821	ATC GGC AGC GTT GGA CTG GGG AAG GTC CTC GTG GAC ATT CTT GCA GGG TAT GGC GCG GGC GTG GCG GGA GCT CTT GTA GCA
4507/811	4537/821	G A A I G S V G L G K V L V D I L A G Y G A G V A G A L V A
4597/841	4627/851	ATG AGC GGT GAG GTC CCC TCC ACG GAG GAC CTG GTC AAT CTG CTG CCC GGC ATC CTC TCG CCT GGA GCC CTT GFA GTC GGT
4597/841	4627/851	I M S G E V P S T E D L V N L L P A I L S P G A L V V G
4687/871	4717/881	TGC GCA ATA CTG CGC CGG CAC GTC CGG GGC GAG GGG GCA GTG CAA TGG ATG AAC CGG CTA ATA GCC TTC GCC TCC CGG
4687/871	4717/881	V V C A A I L R R H V G G P G E G A V Q W M N R L I A F A S R

26/38

Fig. 12B-3

4777/901 GGG AAC CAT GTT TCC CCC ACG CAC TAC GTG CCG GAG AGC GAT GCA GCC GCC GGC GTC ACT GCC ATA CTC AGC AGC CTC ACT GTA ACC CAG
 G N H V S P T H Y V P E S D A A A R V T A I L S S L T V T Q
 4867/931 CTC CTG AGG CGA CTG CAT CAG TGG ATA AGC TCG GAG TGT ACC ACT CCA TGC TCC GGT TCC TGG CTA AGG GAC ATC TGG GAC TGG ATA TGC
 L L R R L H Q W I S S E C T T P C S G S W L R D I W D W I C
 4957/961 GAG GTG CTG AGC GAC TTT AAG ACC TGG CTG AAA GCC AAG CTC ATG CCA CAA CTG CCT GGG GAT CCC TTT GTG TCC TGC CAG CGC GGG TAT
 E V L S D F K T W L K A K L M P Q L P G I P F V S C Q R G Y
 5047/991 AGG GGG GTC TGG CGA GGA GAC GGC ATT ATG CAC ACT CGC TGC CAC TGT GGA GCT GAG ATC ACT GGA CAT GTC AAA AAC GGG ACG ATG AGG
 R G V W R G D G I M H T R C H C G A E I T G H V K N G T M R
 5137/1021 ATC GTC GGT CCT AGG ACC TGC AGG AAC ATG TGG AGT GGG ACG TTC CCC ATT AAC GCC TAC TAC ACC ACG GGC CCC TGT ACT CCC CTT CCT GCG
 I V G P R T C R N M W S G T F P I N A Y T T G P C T T G G P C T T P L P A
 5227/1051 CCG AAC TAT AAG TTC GCG CTG TGG AGG GTG TCT GCA GAG GAA TAC GTG GAG ATA AGG CCG GTG GGG GAC TTC CAC TAC GTA TCG GGT ATG
 P N Y K F A L W R V S A E Y V E I R R V G D F H Y V S G M
 5317/1081 ACT ACT GAC AAT CTT AAA TGC CCG TGC CAG ATC CCA TCG CCC GAA TTT TTC ACA GAA TTG GAC GGG GTG CGC CTA CAC AGG TTT GCG CCC
 T T D N L K C P C Q I P S S P E F T E L D G V R L H R F A P
 5407/1111 CCT TGC AAG CCC TTG CTG CCG GAG GAG GTA TCA TTC AGA GTA GGA CTC CAC GAG TAC CCG GTG GGG TCG CAA TTA CCT TGC GAG CCC GAA
 P C K P L L R E V S F R V G L H E Y P V G S Q L P C E P E
 5497/1141 CCG GAC GTA GCC GTG TTG ACG TCC ATG CTC ACT GAT CCC TCC CAT ATA ACA GCA GAG GCG GCC GGG AGA AGG TTG GCG AGA GGG TCA CCC
 P D V A V L T S M L T D P S H I T A E A A G R L A R G S P
 5587/1171 CCT TCT ATG GCC AGC TCC TCG GCT AGC CAG CTG TCC GCT CCA TCT CTC AAG GCA ACT TGC ACC GCC AAC CAT GAC TCC CCT GAC GCC GAG
 P S M A S S A S Q L S A P S L K A T C T A N H D S P D A E
 5677/1201 CTC ATA GAG GCT AAC CTC CTG TGG AGG CAG GAG ATG GGC GGC AAC ATC ACC AGG GTT GAG TCA GAG AAC AAA GTG GTG ATT CTG GAC TCC
 L I E A N L L W R Q E M G G N I T R V E S E N K V V I L D S
 5767/1231 TTC GAT CCG CTT GTG GCA GAG GAG GAT GAG CCG GAG GTC TCC GTA CCT GCA GAA ATT CTG CGG AAG TCT CGG AGA TTC GCC CGG GCC CTG
 F D P L V A E E D E R E V S V P A E I L R K S R R F A R A L
 5857/1261 CCC GTC TGG GCG CCG GAC TAC AAC CCC CCG CTA GTA GAG ACG TGG AAA AAG CCT GAC TAC GAA CCA CCT GTG GTC CAT GGC TGC CCG
 P V W A R P D Y N P P L V E T W K K P D Y E P P V V H G C P
 5947/1291 CTA CCA CCT CCA CCG TCC CCT CCT GTG CCT CCG CCT CGG AAA AAG CGT ACG GTG GTC CTC ACC GAA TCA ACC CTA TCT ACT GCC TTG GCC
 L P P P R S P P V P P R R K K R T V V L T E S T L S T A L A
 6037/1321 GAG CTT GCC ACC AAA AGT TTT GGC AGC TCC TCA ACT TCC GGC ATT ACG GGC GAC AAT ACG ACA TCC TCT GAG CCC GCC CCT TCT GGC
 E L A T K S F G S S T S G I T G D N T T T S E P A P S G

27/38

Fig. 12B-4

6127/1351 TGC CCC CCC GAC TCC GAC GTT GAG TCC TAT TCT TCC ATG CCC CCC CTG GAG GGG GAG CCT GGG GAT CCG GAT CTC AGC GAC GGG TCA TGG
 C P P D S D S D V E S Y S S M P P P L E G E P G D P G D S D G S W
 6217/1381 TCG ACG GTC AGT AGT GGG GCC GAC ACG GAA GAT GTC GTG TGC TGC TCA ATG TCT TAT TCC TGG ACA GGC GCA CTC GTC ACC CCG TGC GCT
 S T V S S S G A D T E D V V C C C S M S Y S W T G A L V T P C A
 6307/1411 GCG GAA GAA CAA AAA CTG CCC ATC AAC GCA CTG AGC AAC TCG TTG CTA CGC CAT CAC AAT CTG GTG TAT TCC ACC ACT TCA CGC AGT GCT
 A E E Q K L P I N A L S N S L L R H N L V Y S T T S R S A
 6397/1441 TGC CAA AGG CAG AAG AAA GTC ACA TTT GAC AGA CTG CAA GTT CTG GAC AGC CAT TAC CAG GAC GTG CTC AAG GAG GTC AAA GCA GCG GCG
 C Q R Q K K V T F D R L Q V L D S H Y Q D V L K E V K A A
 6487/1471 TCA AAA GTG AAG GCT AAC TTG CTA TCC GTA GAG GAA GCT TGC AGC CTG ACG CCC CCA CAT TCA GCC AAA TCC AAG TTT GGC TAT GGG GCA
 S K V K A N L L S V E E A C S S L T P P H S A K S K F G Y G A
 6577/1501 AAA GAC GTC CGT TGC CAT GGC AGA AAG GCC GTA GCC CAC ATC AAC TCC GTG TGG AAA GAC CTT CTG GAA GAC AGT GTA ACA CCA ATA GAC
 K D V R C H A R K A V A H I N S V W K D L L E D S V T P I D
 6667/1531 ACT ACC ATC ATG GCC AAG AAC GAG GTT TTC TGC GTT CAG CCT GAG AAG GGG GGT CGT AAG CCA GGT TCG CTC ATC GTG TTC CCC GAC CTG
 T T I M A K N E V F C V Q P E K G G R K P A R L I V F P D L
 6757/1561 GGC GTG CGC GTG TGC GAG AAG ATG GCC CTG TAC GAC GTG GTT AGC AAG CTC CCC CTG GCC GTG ATG GGA AGC TCC TAC GGA TTC CAA TAC
 G V R V C E K M A L Y D V V S K L P L A V M G S S Y G F Q Y
 6847/1591 TCA CCA GGA CAG CGG GTT GAA TTC CTC GTG CAA GCG TGG AAG TCC AAG AAG ACC CCG ATG GGG TTC TCG TAT GAT ACC CGC GTC TGT TTT GAC
 S P G Q R V E F L V Q A W K S K K T P M G F S Y D T R C F D
 6937/1621 TCC ACA GTC ACT GAG AGC GAC ATC CGT ACG GAG GAG GCA ATT TAC CAA TGT TGT GAC CTG GAC CCC CAA GCC CGC GTG GCC ATC AAG TCC
 S T V T E S D I R T E E A I Y Q C C D L D P Q A R V A I K S
 7027/1651 CTC ACT GAG AGG CTT TAT GTT GGG GGC CCT CTT ACC AAT TCA AGG GGG GAA AAC TGC GGC TGC CGC AGG TGC CGC GCG AGC GGC GTA CTG
 L T E R L Y V G G P L T N S R G E N C G Y R R C R A S G V L
 7117/1681 ACA ACT AGC TGT GGT AAC ACC CTC ACT TGC TAC ATC AAG GCC CGG GCA GCC TGT CGA GCC GCA GGG CTC CAG GAC TGC ACC ATG CTC GTG
 T T S C G N T T L T C Y I K A R A C R A A G L Q D C T M L V
 7207/1711 TGT GGC GAC GAC TTA GTC GTT ATC TGT GAA AGT GCG GGG GTC CAG GAG GAC GCG GCG AGC CTG AGA GCC TTC ACG GAG GCT ATG ACC AGG
 C G D D L V V I C E S A G V Q E D A A S L R A F T E A M T R
 7297/1741 TAC TCC GCC CCC CCC GGG GAC CCC CCA CAA CCA GAA TAC GAC TTG GAG CTT ATA ACA TCA TGC TCC TCC AAC GTG TCA GTC GCC CAC GAC
 Y S A P P G D P P Q P E Y D L E L I T S C S S N V S V A H D
 7387/1771 GGC GCT GGA AAG AGG GTC TAC TAC CTT ACC CTT GAC CCT ACA ACC CCC CTC GCG AGA GCC GCG TGG GAG ACA GCA AGA CAC ACT CCA GTC
 G A G K R V Y Y L T R D P T T P L A R A A W E T A R H T P V

28/38

Fig. 12B-5

7477/1801 AAT TCC TGG CTA GGC AAC ATA ATC ATG TTT GCC CCC ACA CTG TGG GCG AGG ATG ATA CTG ATG ACC CAT TTC TTT AGC GTC CTC ATA GCC
 N S W L I M F A P T L L L M T H F F S V L I A
 7567/1831 AGG GAT CAG CTT GAA CAG GCT CTT AAC TGT TAC TCC TAC TGC GGC GAA GGC GAT GAT CTA CCT CCA ATC ATT CAA AGA
 R D Q L E Q A L N C E I Y G A C Y S I E P L D L P I I Q R
 7657/1861 CTC CAT GGC CTC AGC GCA TTT TCA CTC CAC AGT TAC TCT CCA GGT GAA ATC AAT AGG GTG GCC GCA TGC CTC AGA AAA CTT GGG GTC CCG
 L H G L S A F S L H S Y S P G E I N R V A A C L R K L G V P
 7747/1891 CCC TTG CGA GCT TGG AGA CAC CGG GCC GCT AGG CTT CTG TCC AGA GGA GGC AGG GCT GCC ATA TGT GGC AAG TAC CTC
 P L R A W R H R A R S V R A R L L S R G R A A I C G K Y L
 7837/1921 TTC AAC TGG GCA GTA AGA ACA AAG CTC AAA CTC ACT CCA ATA GCG GCC GCT GGC CCG CTG GAC TTG TCC TCC GGT TGG TTC ACG GCT GGC TAC
 F N W A V R T K L K L T P I A A A A G R L D L S G W F T A G Y
 7927/1951 AGC GGG GGA GAC ATT TAT CAC AGC GTG TCT CAT GCC CGG CCC CGC TGG TTC TGG TTT TGC CTA CTC CTG CTC GCT GCA GGG GTA GGC ATC
 S G D I Y H S V S H A R P R W F F W F C L L L L A A G V G I
 8017/1981 TAC CTC CTC CCC AAC CGA TGA
 Y L L P N R *
 7507/1811
 7597/1841
 7687/1871
 7777/1901
 7867/1931
 7957/1961
 8047/1991
 7537/1821
 7627/1851
 7717/1881
 7807/1911
 7897/1941
 7987/1971
 8077/2001

Fig. 13A

29/38

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1 gccagccccc tgatgggggc gacactccac catgaatcac tcccctgtga ggaactactg
61 tctttcacgca gaaagcgtct agccatggcg ttagtatgag tgtcgtgcag cctccaggac
121 cccccctccc gggagagcca tagtgggtctg cggaaccggg gagtacaccg gaattgccag
181 gacgaccggg tcctttcttg gataaaccgg ctcaatgcct ggagatttgg gcgtgcccc
241 gcaagactgc tagccgagta gtgttggtgc gcgaaaggcc ttgtggtact gcctgatagg
301 gtgcttgcca gtgccccggg aggtctcgta gaccgtgcac catgagcacg aatccaaac
361 ctcaaagaaa aaccaaacgt aacaccaacc gtcgcccaca ggacgtcaag ttcccgggtg
421 gcggtcagat cgttggtgga gtttacttgt tgccgcgcag gggccctaga ttgggtgtgc
481 gcgcgacgag gaagacttcc gagcggtcgc aacctcgagg tagacgtcag cctatcccca
541 aggcacgtcg gcccgagggc aggacctggg ctacagcccgg gtacccttgg cccctctatg
601 gcaatgaggg ttgcgggtgg gcgggatggc tcctgtctcc ccgtggctct cggcctagct
661 ggggccccac agacccccgg cgtaggtcgc gcaatttggg taaggctatc gataccctta
721 cgtgcggctt cgccgacctc atggggtaca taccgctcgt cggcgcacct cttggaggcg
781 ctgccagggc cctggcgcat ggcgtccggg ttctggaaga cggcgtgaac tatgcaacag
841 ggaaccttcc tggttgctct ttctctatct tccttctggc cctgtctctc ttaccatgtc accaattgatt
901 tgcccgttcc agcctaccaa gtgcgcaatt cctcggggct ccgatgccat cctgcacact ccggggtgtg
961 gccctaactc gagtattgtg tacgaggcgg ggtgttgggt ggcggtgacc ccacggtgg
1021 tcccttgctg ccaccaggga cggcaaactc cccacaacgc agcttcgacg tcatatcgat ctgcttgcg
1081 ggagcgccac cctctgctcg gccctctacg tgggggacct gtgcgggtct gtctttcttg
1141 ttggtcaact gtttaccttc tctcccaggc gccactggac gacgcaagac tgcaattggt
1201 ctatctatcc cggccatata acgggtcatc gcatggcatg ggatatgatg atgaactggt
1261 cccctacggc agcgttggtg gtagctcagc tgctccggat cccacaagcc atcatggaca
1321 tgatcgctgg tgctcactgg ggagtcctgg cgggcatagc gtatttctcc atggtgggga
1381 actgggcgaa ggtcctggta gtgctgtgc tatttgccgg cgtcgacgcg gaaacccacg
1441 tcaccggggg aaatgccggc cgcaccacgg ctgggcttgt tggctctcct acaccaggcg
1501 ccaagcagaa catccaactg atcaacacca acggcagttg gcacatcaat agcacggcct
1561 tgaattgcaa tgaaagcctt aacaccggct ggtagcagg gctcttctat caacacaaat
1621 gcaattgggt aggtgtcctc gagaggttgg ccagctgccg acgccttacc gattttgccc
1681 agggctgggg tcctatcagt tatgccaacg gaagcgccct cgacgaacgc gactactgct
1741 ggcactaccc tccaagacct tgtggcattg tgcccgcaaa gagcgtgtgt ggcccgggat
1801 attgcttcac tcccagcccc gtggtggtgg gaacgaccga caggtcgggc gcgcctacct
1861 acagctgggg tgcaaatgat acggatgtct tcgtccttaa caacaccagg ccaccgctgg
1921 gcaattgggt cggttgtacc tggatgaact caactggatt caccaaagtg tgccgagcgc
1981 ccccttgtgt catcgagggg gtgggcaaca acaccttgct ctgccccact gattgcttcc
2041 gcaaaccatc ggaagccaca tactctcggg gcggtccggg tccctggatt acacccaggg
2101 gcatggtcga ctaccgctat aggccttggc actatccttg taccatcaat tacaccatat
2161 tcaaagtcag gatgtacgtg ggaggggtcg agcacaggct ggaagcgggc tgcaactgga
2221 cgcgggcgga acgctgtgat ctggaagaca gggacaggtc cgagctcagc ccgttgctgc
2281 tgtccaccac acagtggcag gtccttccgt gttctttcac gaccctgcca gccttgcca
2341 ccggcctcat ccacctccac cagaacattg tggacgtgca gtacttgtac ggggtagggt
2401 caagcatcgc gtcctggggc attaatgggg agtacgtcgt tctcctgttc cttctgcttg
2461 cagacgcgcg cgtctgtccc tgcttggtga tgatgttact catatcccaa ggcggaggcg
2521 ctttgagaaa cctcgtaata ctcaatgcag catccctggc cgggacgcac ggtcttgtgt
2581 ccttctctgt gttcttctgc tttgcgtggg atctgaaggg taggtgggtg cccggagcgg
2641 tctacgccct ctacgggatg tggcctctcc tcctgtcctc gctggcgttg cctcagcggg
2701 catacgcact ggacacggag gtggccgcgt cgtgtggcgg cgttgttctt gtcgggttaa
2761 tggcgtgac tattacaagc tattaacagc tgcataatcag ctggtgcatg tgggtgcttc
2821 agtattttct gaccagagta gaagcgcaac tgcacgtgtg ggttcccccc ctcaacgtcc
2881 gggggggggc cgatgccgtc atcttactca tgtgtgtagt acacccgacc ctggtatttg
2941 acatcaccaa actactcctg gccatcttcg gaccttttg gattcttcaa gccagtttgc
3001 ttaaagtccc ctacttcgtg cgcgttcaag gccttctccg gatctgcgcg ctagcgcgga

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Fig. 13B

30/38

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3121 agatagccgg aggtcattac gtgcaaatgg ccatcatcaa gttaggggcg cttactggca
3181 cctatgtgta taaccatctc acccctcttc gagactgggc gcacaacggc ctgcagatc
3241 tggccgtggc tgtggaacca gtgctcttct cccgaatgga gaccaagctc atcagtgagg
3301 gggcagatac cgccgcgtgc ggtgacatca tcaacggctt gcccgctctc gcccgtaggg
3361 gccaggagat actgcttggg ccagccgacg gaattggtctc caaggggtgg aggttgcctg
3421 cgcccatcac ggcgtacgcc gagcagacga gaggcctcct aggggtgata atcaccagcc
3481 tgactggccg ggacaaaaac caagtggagg gtgaggtcca gatcgtgtca actgctaccc
3541 aaaccttcct ggcaacgtgc atcaatgggg tatgctggac tgtctaccac ggggcccga
3601 cgaggaccat cgcatacccc aagggtcctg tcatccagat gtataccaat gtggaccaag
3661 accttgtggg ctggcccgtt cctcaagggt cccgctcatt gacaccctgt acctgcggct
3721 cctcggacct ttacctggtc acgaggcacg ccgatgtcat tcccgtgcgc cggcgaggtg
3781 atagcagggg tagcctgctt tcgccccggc ccatttccta cttgaaaggc tctcggggg
3841 gtccgctgtt gtgccccgcg ggacacgccc tgggcctatt cagggccgcg gtgtgcaccc
3901 gtggagtggc taaagcggtg gaactttatcc ctgtggagaa cctagggaca accatgagat
3961 ccccggtgtt cacggacaac tcctctccac cagcagtgcc ccagagcttc cagggtggccc
4021 acctgcatgc tcccaccggc agcggtaaga gcaccaaggt cccgctgcg tacgcagccc
4081 agggctacaa ggtgttggtg ctcaaccctt ctgttgctgc aacgctgggc tttggtgctt
4141 acatgtccaa ggcccatggg gttgatccta atatcaggac cggggtgaga acaattacca
4201 ctggcagccc catcacgtac tccacctacg gcaagtccct tgccgacggc ggggtgctcag
4261 gaggtgctta tgacataata atttgtgacg agtgccactc cacggatgcc acatccatct
4321 tgggcatcgg cactgtcctt gaccaagcag agactgcggg ggcgagactg gttgtgctcg
4381 ccactgctac ccctccgggc tccgtcactg tgtcccatcc taacatcgag gaggttgctc
4441 tgtccaccac cggagagatc cccttttacg gcaaggctat ccccctcgag gtgatcaagg
4501 ggggaagaca tctcatcttc tgccactcaa agaagaagtg cgacgagctc gccgcgaagc
4561 tggtcgcatt gggcatcaat gccgtggcct actaccgcgg tcttgacgtg tctgtcatcc
4621 cgaccagcgg cgatgttgct gtcgtgtcga cccgatgctc catgactggc tttaccggcg
4681 acttcgactc tgtgatagac tgcaaacagt gtgtcactca gacagtcgat ttcagccttg
4741 accctacctt taccattgag acaaccacgc tccccagga tgctgtctcc aggactcaac
4801 gccggggcag gactggcagg ggaagccag gcacttatag atttgtggca ccgggggagc
4861 gccctccgg catgttcgac tctgtgagt tctgtgagt ctagacgcg ggctgtgctt
4921 ggtatgagct cacgcccgc gagactacag ttaggctacg agcgtacatg aacaccccg
4981 ggcttcccg gtgccaggac catcttgaat tttgggaggg cgtctttacg ggcctcactc
5041 atatatagc ccacttttta tcccagacaa agcagagtgg ggagaacttt ccttacctgg
5101 tagcgtaaca agccaccgtg tgcgttaggg ctcaagcccc tccccatgg tgggaccaga
5161 tgtggaagt tttgatccgc cttaaaccca ccctccatgg gccaacaccc ctgctataca
5221 gactgggcgc tgttcagaat gaagtcaccc tgacgcaccc aatcaccaa tacatcatga
5281 catgcatgtc ggccgacctg gaggtcgtca cgagcacctg ggtgctcgtt ggcggcgctc
5341 tggctgctct ggccgcgtat tgccgtgcaa caggctgcgt ggtcatagt ggcaggatcg
5401 tcttgctccg gaagccggca attataacct acagggaggt tctctaccag gagttcgatg
5461 agatggaaga gtgctctcag cacttaccgt acatcgagca agggatgatg ctcgctgagc
5521 agttcaagca gaaggccctc ggccctcctg agaccgcgtc ccgccatgca gaggttatca
5581 cccctgctgt ccagaccaac tggcagaaac tgcaggtcct ttgggcgaag cacatgtgga
5641 atttcatcag tgggatacaa tacttggcgg gctgtgcaac gctgctggtt aaccccgcca
5701 ttgcttcatt gatggctttt acagctgcgg tcaccagccc ggccaacccc ggtgccgcta
5761 tctcttcaa catattgggg ggggtgggtg ctgcccagct cgcgcccccc ggtgccgcta
5821 ctgcctttgt ggggtgctggc ctgactggcg ccccatcgg cagcgttggg ctgggggaag
5881 tctcgtgga cattcttgca gggatggcg cggcgctggc gggagctctt gtagcattca
5941 agatcatgag cggtgaggtc cctccacgg aggacctggt caatctgctg cccgccatcc
6001 tctcgctgg agcccttgta gtcggtgtgg tctgcgcagc aatactgcg cggcacgttg
6061 gccggggcga gggggcagtg caatggatga accggctaag agccttcgcc tcccggggga
6121 accatgtttc cccacgcac tacgtgccc agagcgatgc agccgccgc gtcactgcca
6181 tactcagcag cctcactgta acccagctcc tgaggcgact gcatcagtgg ataagctcgg
6241 agtgtaacc tccatgctcc gttctctgg taagggacat ctgggactgg atatgcagg
6301 tgctgagcga ctttaagacc tggctgaaag ccaagctcat gccacaactg cctgggattc
6361 cctttgtgtc ctgccagcgc gggatatagg ggggtctggc agggagacggc attatgcaca
6421 ctcgctgcca ctgtggagct gagatcactg gacatgtcaa aaacgggacg atgaggatcg
6481 tcggtcctag gacctgcagg aacatgtgga gtgggacgtt ccccataac gcctacacca

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Fig. 13C

31/38

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6541 cggggccctg tactcccctt cctgcgcgga actataagtt cgcgctgtgg aggggtgtctg
6601 cagaggaata cgtggagata aggcgggtgg gggacttcca ctacgtatcg ggtatgacta
6661 ctgacaatct taaatgcccg tgccagatcc catcgcccga atttttcaca gaattggacg
6721 ggggtgcgcct acacaggttt gcgccccctt gcaagccctt gctgcgggag gaggtatcat
6781 tcagagtagg actccacgag taccgggtgg ggtcgcaatt accttgcgag cccgaaccgg
6841 acgtagccgt gttgacgtcc atgtcactg atccctccca tataacagca gaggcgccg
6901 ggagaagggtt ggcgagaggg tcaccccctt ctatggccag ctccctcggt agccagctgt
6961 ccgctccatc tctcaaggca acttgcaccg ccaaccatga ctccctgac gccgagctca
7021 tagaggctaa cctcctgtgg aggcaggaga tgggcggcaa catcaccagg gttgagtcag
7081 agaacaaagt ggtgattctg gactccttct atccgcttgt ggcagaggag gatgagcggg
7141 aggtctccgt acctgcagaa attctgcgga agtctcgga attcgcccg gccctgcccg
7201 tctgggcgcg gccggactac aaccccccg tagtagagac gtggaaaaag cctgactacg
7261 aaccacctgt ggtccatggc tgcccgtac cacctccacg gtccctcct gtgcctccgc
7321 ctcggaaaaa gcgtacggtg gtccctcacc aatcaaccct atctactgcc ttggccgagc
7381 ttgccaccaa agtttttggc agtccctcaa ctcccgcat tacggcgac aatacgacaa
7441 catcctctga gcccgcccct tctggctgcc ccccgcactc cgacgttgag tcctattctt
7501 ccatgcccc cctggagggg gagcctgggg atccggatct cagcgacggg tcatggtcga
7561 cggtcagtag tggggccgac acggaagatg tctgtgtctg ctcaatgtct tattcctgga
7621 caggcgcact cgtcaccctg tgcgtgcgg aagaacaaaa actgccatc aacgcactga
7681 gcaactcgtt gctacgcat cacaatctgg tgtattccac cacttcacgc agtgcttgcc
7741 aaaggcagaa gaaagtcaca tttgacagac tgcaagttct ggacagccat taccaggacg
7801 tgctcaagga ggtcaaagca gcggcgctca aagtgaaggc taacttgcta tccgtagagg
7861 aagcttgtag cctgacgccc ccacattcag ccaaattcaa gtttggtat ggggcaaaaag
7921 acgtccgttg ccatgccaga aaggccgtag cccacatcaa ctccgtgtgg aaagaccttc
7981 tggaagacag tgtaacacca atagacacta ccatcatggc caagaacgag gttttctgcg
8041 ttcagcctga gaaggggggt cgtaagccag ctctctcat cgtgttcccc gacctggcg
8101 tgcgctgtg cgagaagatg gccctgtacg acgtggttag caagctcccc ctggccgtga
8161 tgggaagctc ctacggattc caatactcac caggacagcg ggttgaaattc ctctgtcaag
8221 cgtggaagtc caagaagacc ccgatgggg tctcgtatga taccgctgt tttgactcca
8281 cagtcactga gagcgacatc cgtacggagg aggcatttta ccaatgttgt ccaatgttgt
8341 cccaagcccg cgtggccatc aagtccctca ctgagaggct ttatgttggg ggcctctta
8401 ccaattcaag gggggaacac tgcggtacc gcaggtgccg cgcgagcggc gtactgacaa
8461 ctagctgtgg taacaccctc acttgctaca tcaaggcccc ggcagcctgt cgagccgag
8521 ggctccagga ctgcaccatg ctctgtgtg gcgacgactt agtcgttatc tgtgaaagt
8581 cgggggtcca ggaggacg cgagcctga gagccttcac ggaggctatg accaggact
8641 ccgccccccc cggggacccc ccacaaccag aatacgactt ggagcttata acatcatgct
8701 cctccaacgt gtcagtcgcc cagcagggcg ctggaaagag ggtctactac cttaccctgt
8761 accctacaac cccctcgcg agagccgcgt gggagacagc aagacacact ccagtcaatt
8821 cctggctagg caacataatc atgtttgccc ccacactgtg ggcgaggatg atactgatga
8881 cccatttctt tagcgtcctc atagccaggg atcagcttga acaggctctt aactgtgaga
8941 tctacggagc ctgctactcc atagaaccac tggatctacc tccaatcatt caaagactcc
9001 atggcctcag cgcattttca ctccacagtt actctccagg tgaatcaat aggggtggccg
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9121 tccgcgctag gcttctgtcc agaggaggca gggctgccat atgtggcaag tacctcttca
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9241 tgtccggttg gttcacggct ggctacagcg ggggagacat ttatcacagc gtgtctcatg
9301 cccggccccg ctggttctgg ttttgctac tcctgtctgc tgcaggggta ggcactctac
9361 tcttcccaa ccgatgaagg ttggggtaaa cactccggcc tcttaagcca tttctgttt
9421 tttttttttt tttttttttt tttttctttt ttttttctt tcctttcctt ctttttttcc
9481 tttctttttt cttcttttaa tgggtggctcc atcttagccc tagtcacggc tagctgtgaa
9541 aggtccgtga gccgcatgac tgcagagagt gctgatactg gcctctctgc agatcatgt

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Fig. 13D

32/38

MSTNPKPQRKTKRNTNRRPQDVKFPGGGQIVGGVYLLPRRGPRL
GVRATRKTSESRQPRRRQPIPKARRPEGRTWAQPGYPWPLYGNEGCGWAGWLLSPRG
SRPSWGPTDPRRRSRNLGKVIDTLTCGFADLMGYIPLVGAPLGGAARALAHGVRVLED
GVNYATGNLPGCSFSIFLLALLSCLTVPASAYQVRNSSGLYHVTNDCPNSSIVYEAAD
AILHTPGCVPCVREGNASRCWVAVTPTVATRDGKLPTTQLRRHIDLLVGSATLCSALY
VGDLCGSVFLVGQLFTFSPRRHWTQDCNCSIYPGHITGHRMAWDMMNWSPTAALVV
AQLLRIPQAIMDMIAGAHWGLAGIAYFSMVGNWAKVLVLLLFAGVDAETHVTGGNA
GRTTAGLVGLLTPGAKQNIQLINTNGSWHINSTALNCNESLNTGWLGLFYQHKNSS
GCPERLASCRRLTDFAGWGPISYANGSGLDERPYCWHYPPRPGIVPAKSVCGPVC
FTPSPVVVGTTDRSGAPTYSWGANDTDVFLNNTRPPLGNWFGCTWMNSTGFTKVCGA
PPCVIGGVGNNTLLCPTDCFRKHPEATYSRCGSGPWITPRCMVDYPYRLWHYPCTINY
TIFKVRMYVGGVEHRLEAACNWTRGERCDLEDORSELSPLLLSTTQWQVLPSCSFTTL
PALSTGLIHLHQNIQVQYLYGVGSSIASWAIKWEYVLLFLLADARVCSCLMMLL
ISQAEAALENLVILNAASLAGTHGLVSFLVFFCFAWYLGKRWVPGAVYALYGMWPLLL
LLLALPQRAYALDTEVAASCGGVVLVGLMALTLSPYYKRYISWCMWWLQYFLTRVEAQ
LHVWVPPNLVRGGRDAVILLMCVVHPTLVFDITKLLLAIFGPLWILQASLLKVPYFVR
VQGLLRICALARKIAGGHYVQMAIIKLGALTGTYYVYNHLTPLRDWAHNGLRDLAVAVE
PVVFSRMETKLITWGADTAACGDIINGLPVSARRGQEILLGPADGMVSKGWRLAPIT
AYAQQTRGLLGCIITSLTGRDKNQVEGEVQIVSTATQTFLATCINGVCWTVYHGAGTR
TIASPKGPVIQMYTNVDQDLVGWPAPQGSRLTPCTCGSSDLYLVTRHADVIPVRRRG
DSRGSLLSPRPISYKGS SGGP LCPAGHAVGLFRAAVCTRGVAKAVDFIPVENLGT
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AIPLEVIKGGRHIFCHSKKKCDELAACKLVALGINAVAYYRGLDVSIVPTSGDVVVVS
TDALMTGFTGDFDSVIDCNTCVTQTQTVDFSLDPTFTIETTTLPQDAVSRTQRRGRTGRG
KPGIYRFVAPGERPSGMFDSSVLCECYDAGCAWYELTPAETTVRLRAYMNTPGLPVCQ
DHLEFWEGVFTGLTHIDAHFLSQTKQSGENFPYLVAYQATVCARAQAPPPSWDQMWKC
LIRLKPTLHGPTPLLYRLGAVQNEVTLTHPITKYIMTCMSADLEVVTSTWVLVGGVLA

Fig. 13E

33/38

ALAAYCLSTGCVVIVGRIVLSGKPAIIPDREVLYQEFDEMEEC SQHLPYIEQGMMMLAE
QFKQKALGLLQTASRHAEVITPAVQTNWQKLEFWAKHMWNFISGIQYLAGLSTLPGN
PAIASLMAFTAAVTSPLTTGQTLLFNILGGWVAAQLAAPGAATAFVGAGLAGAAIGSV
GLGKVLVDILAGYGAGVAGALVAFKIMSGEVPSTEDLVNLLPAILSPGALVVGVCVAA
ILRRHVGPGEAVQWMNRLIAFASRGNHVSPTHYVPESDAAARVTAILSSLTVTQLLR
RLHQWISSECTTPCSGSLRDIWDWICEVLSDFKTWLKAKLMPQLPGIPFVSCQRGYR
GVWRGDGIMHTRCHCGAEITGHVKNGTMRIVGPRTCRNMWSGTFPINAYTTGPCTPLP
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FAPPCKPLLREEVSFRVGLHEYVPGSQLPCEPEPDVAVLTSMLTDP SHITAEAAAGRRL
ARGSPPSMASSSASQLSAPSLKATCTANHDS PDAELIEANLLWRQEMGGNITRVESEN
KVVILDSFDPLVAEEDEREVSVP AEILRKSRRFARALPVWARPDYNPPLVETWKKPDY
EPPVHGCPLPPPRSPVPPPRKKRTTVLTESTLSTALAE LATSFGSSSTSGITGDN
TTTSSEPAPSGCPPDSDVESYSSMPFLEGE PGDPDLSGWSWSTVSSGADTEDVCCSM
SYSWTGALVTPCAAEEQKL PINALSNSLLRHHNLVYSTTSRSACQRQKKVTFDRLQVL
DSHYQDVLKEVKAAASKVKANLLSVEEACSLTPPHSAKSKFGYGAKDVRCHARKAVAH
INSVWKDILLED SVTPIDTTIMAKNEVFCVQPEKGGRKPARLIVFPDLGVRVCEKMALY
DVVSKLPLAVMGSSYGFQYSPGQRVEFLVQAWKSKKTPMGFSYDTRCFDSTVTESDIR
TEEAIYQCCDLDPQARVAIKSLTERLYVGGPLTNSRGENCYRRCRASGVLT TSCGNT
LTCYIKARAACRAAGLQDCTMLVCGDDL VVICESAGVQEDAASLRAFTEAMTRY SAPP
GDPPQPEYDLELITSCSSNVSVAH DGAGKRVYYLTRDPTT PLARAAWETARHTPVNSW
LGNIMFAPTLWARMILMTHFFSVLIARDQLEQALNCEIYGACYSIEPLDLPP I IQRL
HGLSAFSLHSYSPGEINRVAACL RKLGVPLRAWRHRARSVRARLLSRGGRAAICGKY
LFNWAVRTKLKLTPIAAAGRLDLSGWFTAGYSGGDIYHSVSHARPRWFWFCLLLLAAG
VGIYLLPNR"

Fig. 14A

34/38

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1  gccagccccc  tgatgggggc  gacactccac  catgaatcac  tccccctgtga  ggaactactg
61  tcttcacgca  gaaagcgtct  agccatggcg  ttagtatgag  tgctcgtgcag  cctccaggac
121  cccccctccc  gggagagcca  tagtggctctg  cggaaccggg  gagtacaccg  gaattgccag
181  gacgaccggg  tcctttcttg  gataaaccgg  ctcaatgcct  ggagatttgg  gcgtgcccc
241  gcaagactgc  tagccgagta  gtgttgggtc  gcgaaaggcc  ttgtgggtact  gcctgatagg
301  gtgcttgcca  gtgccccggg  aggtctcgta  gaccgtgcac  catgagcacg  aatcctaacc
361  ctcaaagaaa  aaccaaactg  aacaccaacc  gtcgcccaca  ggacgtcaag  ttcccgggtg
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1081  ccaccaggga  cggcaaaact  cccacaacgc  agcttcgacg  tcatatcgat  ctgcttgcg
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1261  ctatctatcc  cggccatata  acgggtcatc  gcatggcatg  gaatatgatg  atgaactggt
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1381  tgatcgctgg  cgcccactgg  ggagtcctgg  cgggcataaa  gtatttctcc  atggtgggga
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1861  attgcttcac  tcccagcccc  gtgggtgggg  gaacgaccga  caggctgggc  gcgcctacct
1921  acagctgggg  tgcaaagtgt  acggatgtct  tcgtccttaa  caacaccagg  ccaccgctgg
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2161  gcatggtcga  ctaccggtat  aggctttggc  actatccttg  taccatcaat  tacaccatat
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2941  gggggggggc  cgatgccgtc  atcttactca  cgtgtgtagt  acaccgggcc  ctggtatttg
3001  acatcaccaa  actactcctg  gccatcttcg  gaccttttg  gattcttcaa  gccagtttgc
3061  ttaaagtccc  ctacttcgtg  cgcgttcaag  gccttctccg  gatctgcgcg  ctagcgcgga

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Fig. 14B

35/38

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3181 cctgtgtgta taaccatctc gtcctctctc gagactgggc gcacaacggc ctgcgagatc
3241 tggccgtggc tgtggaacca gtgctcttct cccgaatgga gaccaagctc atcacgtggg
3301 gggcagatac cgccgcgtgc ggtgacatca tcaacggctt gcccgctctc gcccgtaggg
3361 gccaggagat actgcttggt ccagccgacg gaatggcttc caaggggtgg aggttgctgg
3421 cgcccatcac ggcgtacgcc cagcagacga gaggcctcct aggggtgtata atcaccagcc
3481 tgactggccg ggacaaaaac caagtggagg gtgaggtcca gatcgtgtca actgctaccc
3541 agaccttctt ggcaacgtgc atcaatgggg tatgctggac tgtctaccac ggggcccggaa
3601 cgaggaccat cgcatacccc aagggtcctg tcatccagac gtataccaat gtggatcaag
3661 acctcgtagg ctggcccgtc cctcaagggt cccgctcatt gacacctgc acctgcggct
3721 cctcgacact ttacctggtc acgaggcacg ccgatgtcat tcccgtgcgc cgcgaggtg
3781 atagcagggg tagcctgctt tcgccccggc ccatttccta cttgaaaggc tcctcggggg
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3901 gtggagtggt taaggcgggt gactttatcc ctgtggagaa cctagagaca accatgagat
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4561 tggtcgcatt cgaatgtgtc gtgctgtcga ccgatgtctt catgactggc tttaccggcg
4621 cgaccagcgg acttcgactc tgtgatagac tgcaacacgt gtgtcactca gacagtcat
4681 acttcgactc taccattgag acaaccacgc tccccagga tgctgtctcc aggactcaac
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4861 ggtatgagct cacgcccggc gagactacag ttaggctacg agcgtacatg aacaccccgg
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4981 atatatagtc ccactttcta tcccgacaa agcagagtgg ggagaacttt ccttacctgg
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6361 ctcgctgcca ctgtggagct gagatcactg gagatgtcaa aaacgggacg atgaggatcg
6421 tcggtcctag gacctgcaag aacatgtgga gtgggacgtt cttcattaat gcctacacca

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Fig. 14C

36/38

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6541 cgggccccctg tactccccctt cctgcgccga actataagtt cgcgctgttg aggggtgtctg
6601 cagaggaata cgtggagata aggcgggtgg gggacttcca ctacgtatcg ggcattgacta
6661 ctgacaatct caaatgccccg tgccagatcc catcgccccga atttttcaca gaattggacg
6721 ggggtgcgcct acataggttt gcgccccctt gcaagccctt gctgcgggag gaggatatcat
6781 tcagagtagg actccacgag taccgggtgg ggtcgcaatt accttgcgag cccgaaccgg
6841 acgtagccgt gttgacgtcc atgctcactg atccctccca tataacagca gaggcgcccg
6901 ggagaagggtt ggcgagaggg tcacccccctt ctatggccag ctccctcggt agccagctgt
6961 ccgctccatc tctcaaggca acttgaccg ccaaccatga ctccccgtac gccgagctca
7021 tagaggctaa cctcctgttg aggcaggaga tgggcggcaa catcaccagg gttgagtcag
7081 agaacaaagt ggtgattctg gactccttcg atccgcttgt ggcaaggag gatgagcggg
7141 aggtctccgt acccgagaa attctgcgga agtctcgag attcgcccc gacctgccccg
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7261 aaccacctgt ggtccatggc tgcccgtac cacctccacg gtccccctct gtgacctccg
7321 ctcggaaaaa gcgtacgggt gtcttcaccg aatcaaccct acctactgcc ttggccgagc
7381 ttgccaccaa aagttttggc agtccctcaa cttccggcat tacgggcgac aatacgacaa
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8401 ctaattcaag gggggaaaac tgcggtacc gcaggtgccg cgcgagcaga gtactgacaa
8461 ctactgttg taacaccctc actcgtaca tcaaggcccc ggcagcctgt cgagccgcag
8521 ggctccagga ctgcaccatg ctctgtgttg gcgacgactt agtcgttatc tgtgaaagt
8581 cgggggtcca ggaggacgag gcgagcctga gagccttcac ggaggctatg accaggtact
8641 ccgccccccc cggggacccc ccacaaccag aatacgactt ggagcttata acatcatgct
8701 cctccaacgt gtcagtcgcc cagcagggcg ctggaaagag ggtctactac cttaccctgt
8761 accctacaac cccctcgcg agagccgcgt gggagacagc aagacacact ccagtcgaat
8821 cctggctagg caacataatc atgtttgccc ccacactgtg ggcgaggatg atactgatga
8881 cccacttctt tagcgtctc atagccaggg atcagcttga acaggctctc aactgcgaga
8941 tctacggagc ctgctactcc atagaaccac tggatctacc tccaatcatt caaagactcc
9001 atggcctcag cgcattttca ctccacagtt actctccagg tgaaattaat aggggtggccg
9061 catgcctcag aaaacttggg gteccgccct tgcgagcttg gagacaccg gcctggagcg
9121 tccgcgctag gcttctggcc agaggaggca aggctgccat atgtggcaag tacctcttca
9181 actgggcagt aagaacaaa ctcaaactca ctccgataac ggcgctggc cggctggact
9241 tgtccggctg gttcacggct ggctacagcg ggggagacat ttatcacagc gtgtctcatg
9301 cccggccccg ctggttctgg ttttgctac tctgtctgc tgcagggga ggcactctac
9361 tcctcccaaa ccgatgaaga ttgggctaac cactccaggc caataggcca ttccct

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Fig. 14D

37/38

MSTNPKPQRKTKRNTNRRPQDVKFPGGGQIVGGVYLLPRRGPRL
GVRATRKTSESRQPRGRRQPIPKARRPEGRTWAQPGYPWPLYGNEGCGWAGWLLSPRG
SRPSWGPTDPRRRSRNLGKVIDTLTCGFADLMGYIPLVGAPLGGAARALAHGVRVLED
GVNYATGNLPGCSFSIFLLALLSCLTVPASAYQVRNSSGLYHVTNDCPNSSVVYEAAD
AILHTPGCVPCVREGNASRCWVAVTPTVATRDGKLPTTQLRRHIDLLVGSATLCSALY
VGDLCGSVFLVGQLFTFSPRHHWTTQDCNCISIYPGHITGHRMAWNMMMNWSPTAALVV
AQLLRIPQAIMDMIAGAHWGVLAGIKYFSMVGNWAKVLVVLLLFAGVDAETHVTGGNA
GRTTAGLVGLLTPGAKQNIQLINTNGSWHINSTALNCNESLNTGWLAGLFYQHKFNSS
GCPERLASCRRLLTDFAQGWGPISYANGSGLDERPYCWHYPPRPCGIVPAKSVCGPVYC
FTPSPVVVGTTDRSGAPTYSWGANDTDVFLNNTRPPLGNWFGCTWMNSTGETKVCGA
PPCVIGGVGNNTLLCPTDCFRKYPEATYSRCGSGPRITPRCMVDYPYRLWHYPCTINY
TIFKVRMYVGGVEHRLEAACNWTRGERCDLEDRDRSELSPLLLSTTQWQVLPCSFTTL
PALSTGLIHLHQNIVDVQYLYGVGSSIASWAIKWEYVVLLFLLLADARVCSCLWMMLL
ISQAEAALENLVILNAASLAGTHGLVSFLVFFCFAWYLLKGRWVPGAVYALYGMWPLLL
LLLALPQRAYALDTEVAASCGGVVLVGLMALTLSPIYKRYISWCMWWLQYFLTRVEAQ
LHVWVPPLNVRGGRDAVILLTCVHHPALVFDITKLLLAIFGPLWILQASLLKVYPYFVR
VQGLLRICALARKIAGGHYVQMAIIKLGALTGTCTVYNHLAPLRDWAHNGLRDLAVAVE
PVVFSRMETKLITWGADTAACGDIINGLPVSARRGQEILLGPADGMVSKGWRLAPIT
AYAQQTRGLLGCIITSLTGRDKNQVEGEVQIVSTATQTFLATCINGVCWTVYHGAGTR
TIASPKGPVIQTYTNVDQDLVGWPAPQGSRSPTCTCGSSDLYLVTRHADVIPVRRRG
DSRGSLLSPRPISYLGSSGGPLLCPGHAVGLFRAAVCTRGVAKAVDFIPVENLETT
MRSPVFTDNSSPPAVPQSFQVAHLHAPTSGSKSTKVPAAYAAKGYKVLVLNPSVAATL
GFGAYMSKAHGVDPNIRTGVRTITTGSPITYSTYKFLADAGCSGGAYDIIICDECHS
TDATSIISGIGTVLDQAETAGARLVVLATATPPGSVTVSHPNIEEVALSTTGEIPFYGK
AIPLEVIKGGRHILFCHSKKKCDELAAKLVALGINAVAYYRGLDVSVIPTSGDVVVVS
TDALMTGFTGDFDSVIDCNTCVTQTVDFSLDPTFTIETTTLPQDAVSRTQRRGRTGRG
KPGIYRFVAPGERPSGMFDSVLCCEYDAGCAWYELTPAETTVRLRAYMNTPLGPVCQ
DHLGFWEGVFTGLTHIDAHFLSQTKQSGENFPYLVAYQATVCARAQAPPPSWDQMRKC
LIRLKPTLHGPTPLLYRLGAVQNEVTLTHPITKYIMTCMSADLEVVTSTWVLVGGVLA

Fig. 14E

38/38

ALAAYCLSTGCVVIVGRIVLSGKPAIIPDREVLVYQEFDEMEEC SQHLPYIEQGMMLAE
QFKQKALGLLQTASRHAEVITPAVQTNWQKLEVFwakHMWNFISGIQYLAGLSTLPGN
PAIASLMAFTAAVTSPLTTGQTLLFNILGGWVAAQLAAPGAATAFVGAGLAGAALDSV
GLGKVLVDILAGYGAGVAGALVAFKIMSGEVPSTEDLVNLLPAILSPGALAVGVVFAS
ILRRRVGPGEGAVQWMNRLIAFASRGNHVSPTHYVPESDAAARVTAISSLTVTQLLR
RLHQWISSECTTPCSGSWLRDIWDWICEVLSDFKTWLKAKLMPQLPGIPFVSCQRGYR
GVWRGDGIMHTRCHCGAEITGHVKNGTMRIVGPRTCKNMWSGTTFFINAYTTGPCTPLP
APNYKFALWRVSAEEYVEIRRVGDFHYVSGMTTDLNLKPCQIPSPFEFFTELDGVRLLHR
FAPPCKPLLREEVSFRVGLHEYVGSQLPCEPEPDVAVLTSMILTDP SHITAEAAGRRL
ARGSPPSMASSASQLSAPSLKATCTANHDS PDAELIEANLLWRQEMGGNITRVESEN
KVVILDSFDPLVAEEDEREVSVP AEILRKSRRFAPALPVWARPDYNPLL VETWKKPDY
EPPVVHGCPLPPPRSPVPPPRKKRTVVLTESTLPTALAE LATKSFSGSSSTSGITGDN
TTTSSEPAPSGC PPDSDVESYSSMPPLEGEPGDPDLSDGSWSTVSSGADTEDVCCSM
SYSWTGALVTPCAAEEQKLPINALSNSLLRHNLVYSTTSRSACQRKKKVTFDRLQVL
DSHYQDVLKEVKAAASKVKANLLSVEEACSLAPPHSAKSKFGYGAKDVRCHARKAVAH
INSVWKDLLED SVTPIDTTIMAKNEVFCVQPEKGRKPARLIVFPDLGVRVCEKMALY
DVVSKLPLAVMGSSYGFQYSPGQ RVEFLVQAWKSKKTPMGLSYDTRCFDSTVTESDIR
TEEAIYQCCDLDPQARVAIKSLTERLYVGGPLTNSRGENCGYRRCRASRVLT TSCGNT
LTRYIKARAACRAAGLQDCTMLVCGDDL VVICESAGVQEDAASLRAFTEAMTRY SAPP
GDPPQPEYDLELITSCSSNVSVAH DGAGKRVYYLTRDPTT PLARAAWETARHTPVNSW
LGNII MFAPTLWARMILMTHFFSVLIARDQLEQALNCEIYGACYSIEPLDLPPIIQRL
HGLSAFSLHSYSPGEINRVAACLRLKLGVPPLRAWRHRAW SVRARLLARGGKAAICGKY
LFNWAVRTKLKLT PITAAGRLDL SGWFTAGYSGGDIYHSVSHARPRWFWFCLLLLAAG
VGIYLLPNR"

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